

Baster
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L1 FILE 'CAPLUS' ENTERED AT 12:39:16 ON 23 JUN 2004
1 S BASB111 OR BASB 111 OR BAS(W) (B111 OR B 111)

- key terms

L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 05 Jan 2001
ACCESSION NUMBER: 2001:12631 CAPLUS
DOCUMENT NUMBER: 134:81783
TITLE: Protein and DNA sequences of Moraxella gene
BASB111 and their uses in diagnosis and
vaccination
INVENTOR(S): Thonnard, Joelle
PATENT ASSIGNEE(S): Smithkline Beecham Biologicals SA, Belg.
SOURCE: PCT Int. Appl., 79 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001000837	A1	20010104	WO 2000-EP5852	20000623
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
EP 1196586	A1	20020417	EP 2000-942127	20000623
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
JP 2003503058	T2	20030128	JP 2001-506829	20000623
PRIORITY APPLN. INFO.:			GB 1999-14945	A 19990625
			WO 2000-EP5852	W 20000623

AB The invention provides protein and DNA sequences of Moraxella catarrhalis gene BASB111 and its encoding protein, and methods for producing such protein by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 12:39:43 ON 23 JUN 2004)

L2 1 S L1

L2 ANSWER 1 OF 1 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2001-123013 [13] WPIDS
DOC. NO. NON-CPI: N2001-090329
DOC. NO. CPI: C2001-035704
TITLE: New BASB111 polypeptides of Moraxella catarrhalis useful for diagnostic, prophylactic and

Searcher : Shears 571-272-2528

10/018672

therapeutic purposes against microbial diseases,
preferably bacterial infections.

DERWENT CLASS: B04 D16 S03
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001000837	A1	20010104	(200113)*	EN	79
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000056855	A	20010131	(200124)		
EP 1196586	A1	20020417	(200233)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
JP 2003503058	W	20030128	(200309)		78
CN 1378596	A	20021106	(200316)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001000837	A1	WO 2000-EP5852	20000623
AU 2000056855	A	AU 2000-56855	20000623
EP 1196586	A1	EP 2000-942127	20000623
		WO 2000-EP5852	20000623
JP 2003503058	W	WO 2000-EP5852	20000623
		JP 2001-506829	20000623
CN 1378596	A	CN 2000-809501	20000623

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000056855	A Based on	WO 2001000837
EP 1196586	A1 Based on	WO 2001000837
JP 2003503058	W Based on	WO 2001000837

PRIORITY APPLN. INFO: GB 1999-14945

19990625

AN 2001-123013 [13] WPIDS

AB WO 200100837 A UPAB: 20010307

NOVELTY - An isolated **BASB111** polypeptide (I) of *Moraxella* catarrhalis, comprising a sequence having at least 85% identity to a sequence (S1) comprising 276 amino acids fully defined in the specification, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an isolated polypeptide (Ia) of (S1);
- (2) an immunogenic fragment (Ib) of S1 with the same

Searcher : Shears 571-272-2528

immunogenic activity of (Ia);

(3) an isolated polynucleotide (II) encoding, or comprising a sequence encoding (I), (Ia) or (Ib);

(4) an isolated polynucleotide (IIa) comprising a sequence encoding (I), or its complement;

(5) an isolated polynucleotide (IIb) comprising a nucleotide sequence having at least 85% identity to (II) or its complement;

(6) an isolated polynucleotide (IIc) comprising a sequence having at least 85% identity to a sequence (S2) comprising 831 nucleotides fully defined in the specification, or its complement;

(7) an isolated polynucleotide (IId) comprising S2;

(8) an isolated polynucleotide comprising (IIe) encoding S1, obtainable by screening an appropriate library under stringent hybridization conditions with labeled probe comprising S2;

(9) an expression vector (III) of a recombinant live microorganism, comprising (II)-(IIe);

(10) a host cell (IV) comprising (III), or a subcellular fraction or membrane of (IV) expressing (I);

(11) a process for producing (I);

(12) a process for expressing (II)-(IIe) by transforming (IV) with (III) and culturing transformed (IV) under conditions sufficient for its expression;

(13) a vaccine composition (V) comprising (I)-(Ib), or (II)-(IIe);

(14) an antibody (Ab) immunospecific for (I), (Ia) or (Ib);

(15) a method of diagnosing *Moraxella catarrhalis* infection, by identifying (I)-(Ib) or Ab present within a biological sample from an animal suspected of having such an infection; and

(16) a therapeutic composition (T) comprising (Ab).

ACTIVITY - Antibacterial; antimicrobial.

No data given.

MECHANISM OF ACTION - Vaccine.

Experimental protocols are disclosed but no results are given.

USE - (V) is useful for preparing a medicament for use in generating immuno response in an animal (claimed). (T) is useful for treating humans with *Moraxella catarrhalis* disease (claimed). (II) has utility in diagnosis of the stage and type of infection, and also for therapeutic or prophylactic purposes, in particular genetic immunization.

Dwg.0/3

FILE 'USPATFULL' ENTERED AT 12:40:14 ON 23 JUN 2004

L3 O S L1

(FILE 'CAPLUS' ENTERED AT 12:41:10 ON 23 JUN 2004)

L4 102 SEA FILE=CAPLUS ABB=ON PLU=ON ((MORAXELLA OR M OR BRANHAM? OR B) (W) CATARRHAL?) (S) ANTIGEN

L5 22 SEA FILE=CAPLUS ABB=ON PLU=ON L4 AND (FUSION OR CHIMERIC) (3A) PROTEIN

L6 19 SEA FILE=CAPLUS ABB=ON PLU=ON L5 AND (VACCIN? OR IMMUNIS? OR IMMUNIZ?)

L7 19 L6 NOT L1

L7 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 22 Feb 2004

10/018672

ACCESSION NUMBER: 2004:142989 CAPLUS
DOCUMENT NUMBER: 140:180125
TITLE: **Vaccine** composition comprising transferrin binding protein and Hsf against *Neisseria meningitidis*, *Neisseria gonorrhoeae*, *Moraxella catarrhalis* and *Haemophilus influenzae*
INVENTOR(S): Berthet, Francois-xavier Jacques; Biemans, Ralph; Denoel, Philippe; Feron, Christiane; Goraj, Carine; Poolman, Jan; Weynants, Vincent
PATENT ASSIGNEE(S): Glaxosmithkline Biologicals S.A., Belg.
SOURCE: PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004014419	A1	20040219	WO 2003-EP8567	20030731
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.:
GB 2002-18035 A 20020802
GB 2002-18036 A 20020802
GB 2002-18037 A 20020802
GB 2002-18051 A 20020802
GB 2002-20197 A 20020830
GB 2002-20199 A 20020830
GB 2002-25524 A 20021101
GB 2002-25531 A 20021101
GB 2002-30164 A 20021224
GB 2002-30168 A 20021224
GB 2002-30170 A 20021224
GB 2003-5028 A 20030305

AB The present invention relates to immunogenic compns. and **vaccines** for the prevention or treatment of Gram neg. bacterial infection. Immunogenic compns. of the invention comprise transferrin binding protein and Hsf, and the combination of these two antigens have been shown to act synergistically to produce antibodies with high activity in a serum bactericidal assay. This combination of **antigens** is useful for use in **vaccines** against *Neisseria meningitidis*, *Neisseria gonorrhoeae*, *Moraxella catarrhalis* and *Haemophilus influenzae*.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/018672

L7 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 14 Nov 2003

ACCESSION NUMBER: 2003:892807 CAPLUS

DOCUMENT NUMBER: 139:359960

TITLE: Nucleic acids and proteins from Streptococcus groups A & B and their uses as immunogens in vaccines, diagnostics, and therapeutics

INVENTOR(S): Telford, John; Massignani, Vega; Margarit y Ros, Immaculada; Grandi, Guido; Fraser, Claire; Tettelin, Herve

PATENT ASSIGNEE(S): Chiron S.r.l., Italy; The Institute for Genomic Research

SOURCE: PCT Int. Appl., 150 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003093306	A2	20031113	WO 2003-GB1882	20030502
WO 2003093306	A3	20040212		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: GB 2002-10128 A 20020502

AB The invention provides proteins from group B streptococcus (Streptococcus agalactiae serotype V, strain 2603 V/R) and group A streptococcus (Streptococcus pyogenes strain SF370/ATCC 700294), including amino acid sequences and the corresponding nucleotide sequences. The sequences are useful for preparation of vaccines, diagnostics, and therapeutics for streptococcal infections.

L7 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 05 Sep 2003

ACCESSION NUMBER: 2003:697009 CAPLUS

DOCUMENT NUMBER: 139:229247

TITLE: Chimeric protein comprising avian hepatitis B core antigen and heterologous B and/or T cell epitopes having enhanced stability for use as vaccine

INVENTOR(S): Birkett, Ashley J.; Peck, Birgit

PATENT ASSIGNEE(S): Apovia, Inc., USA

SOURCE: PCT Int. Appl., 279 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

Searcher : Shears 571-272-2528

10/018672

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003072722	A2	20030904	WO 2003-US5315	20030221
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 2002-359129P P 20020221

AB A chimeric, carboxy-terminal truncated avian hepatitis B virus nucleocapsid protein (AHBc) is disclosed that is engineered for both enhanced stability of self-assembled particles and the display of an immunogenic epitope. The display of the immunogenic epitope is displayed in the immunogenic loop of AHBc, whereas the enhanced stability of self-assembled particles is obtained by the presence of at least one heterologous cysteine residue near the carboxy-terminus of the chimera mol. Methods of making and using the chimeras are also disclosed.

L7 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 25 Jul 2003

ACCESSION NUMBER: 2003:570522 CAPLUS

DOCUMENT NUMBER: 139:132440

TITLE: Vaccines comprising immunogenic domains of hepatitis B virus core antigen and T or B cell epitopes derived from pathogenic antigen

INVENTOR(S): Birkett, Ashley J.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ.; 131 pp., Cont.-in-part of U.S. Provisional Ser. No. 226,867.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003138769	A1	20030724	US 2001-930915	20010815
WO 2002014478	A2	20020221	WO 2001-US41759	20010816
WO 2002014478	A3	20030605		
W: AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CO, CR, CU, CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, MZ, NO, NZ, PL, RO, SG, SI, SK, TT, UA, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU,				

Searcher : Shears 571-272-2528

10/018672

TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH,
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
TD, TG

AU 2001085452 A5 20020225 AU 2001-85452 20010816
EP 1333857 A2 20030813 EP 2001-964615 20010816

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

US 2003175863 A1 20030918 US 2002-80299 20020221
US 2003185858 A1 20031002 US 2002-82014 20020221
US 2003202982 A1 20031030 US 2002-274616 20021021

PRIORITY APPLN. INFO.:

US 2000-225843P P 20000816
US 2000-226867P P 20000822
US 2001-930915 A 20010815
WO 2001-US41759 W 20010816
US 2002-80299 A2 20020221

AB A chimeric, carboxy-terminal truncated hepatitis B virus nucleocapsid protein (HBc) is disclosed that is engineered for both enhanced stability of self-assembled particles and the display of an immunogenic epitope. The display of the immunogenic epitope is displayed in the immunogenic loop of HBc, whereas the enhanced stability of self-assembled particles is obtained by the presence of at least one heterologous cysteine residue near the carboxy-terminus of the chimer mol. Methods of making and using the chimeras are also disclosed. The **chimeric proteins** also comprise B cell epitope or T cell epitope present in a pathogen such as Streptococcus pneumonia, Cryptosporidium parvum, HIV, foot and mouth disease virus, influenza virus, Yersinia pestis, Haemophilus influenzae, Moraxella catarrhalis, Porphyromonas gingivalis, Trypanosoma cruzi, Plasmodium falciparum, Plasmodium vivax, Plasmodium berghei, Plasmodium yoelii, Streptococcus sobrinus, Shigella flexneri, RSV, Plasmodium entamoeba histolytica, Schistosoma japonicum, Schistosoma mansoni, bovine inhibin and ebola virus.

L7 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 01 Jun 2003

ACCESSION NUMBER: 2003:417721 CAPLUS

DOCUMENT NUMBER: 139:5625

TITLE: Protein and DNA sequence of **Moraxella**

catarrhalis antigens SHB-MC100

and SHB-MC101 for prophylaxis, diagnosis and therapy of Moraxella infection

INVENTOR(S): Martin, Denis; Hamel, Josee; Brodeur, Bernard R.; Rioux, Stephane; Couture, Julie

PATENT ASSIGNEE(S): Shire Biochem Inc., Can.

SOURCE: PCT Int. Appl., 54 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003043986	A1	20030530	WO 2002-CA1760	20021115

Searcher : Shears 571-272-2528

10/018672

WO 2003043986 C1 20030828
WO 2003043986 A3 20031127

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW,
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,
BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU,
MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-331441P P 20011116

AB The present invention relates to protein and DNA sequence of
Moraxella or **Branhamella catarrhalis**
antigens useful for prophylaxis, diagnosis and/or therapy of
Moraxella infection. The **antigen** are SHB-MC100 and
SHB-MC101 proteins from **M. catarrhalis** strains
ETSU C-2. The invention also relates to kits and immunodiagnosis of
Moraxella infection. The invention further relates to the use of
polypeptide, polynucleotide and antibody in a method for therapeutic
or prophylactic treatment of otitis media, sinusitis, persistent
cough, acute laryngitis.

L7 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 17 Jan 2003

ACCESSION NUMBER: 2003:42408 CAPLUS

DOCUMENT NUMBER: 138:105639

TITLE: An immunoglobulin D-binding protein on the
surface of cells of Moraxella catarrhalis and
its analytical and **vaccine** use

INVENTOR(S): Forsgren, Arne; Riesbeck, Kristian; Janson,
Hakan

PATENT ASSIGNEE(S): Swed.

SOURCE: PCT Int. Appl., 98 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003004651	A1	20030116	WO 2002-SE1299	20020701
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

Searcher : Shears 571-272-2528

10/018672

EP 1409684 A1 20040421 EP 2002-741607 20020701

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK

PRIORITY APPLN. INFO.: SE 2001-2410 A 20010704

WO 2002-SE1299 W 20020701

AB The present invention relates to a 200 kDa cell surface protein of Moraxella catarrhalis that selectively binds membrane bound or soluble IgD; to an immunogenic or IgD-binding fragment; and to an immunogenic and adhesive fragment of the protein. DNA segments, vaccines, plasmids and phages, non human hosts, recombinant DNA mols. and plants, fusion proteins and polypeptides and fusion products are also described. A method of detecting IgD, a method of separating IgD, a method of isolation of a surface exposed protein of Moraxella catarrhalis and a method for treatment of an autoimmune disease is also disclosed. IgD binding proteins were purified chromatog. from cell lysates using IgD binding to assay for the protein. Amino acid sequence-derived primers were used to clone the gene by PCR. The gene and deletion derivs. were expressed in Escherichia coli. The full-length protein was exported into the periplasmic space and could be released by osmotic shock.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT

L7 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 29 Nov 2002

ACCESSION NUMBER: 2002:906293 CAPLUS

DOCUMENT NUMBER: 138:8311

TITLE: Staphylococcus aureus proteins and nucleic acids
and their diagnostic and therapeutic uses for
staphylococcal infections

INVENTOR(S): Massignani, Vega; Mora, Marirosa; Scarselli,
Maria

PATENT ASSIGNEE(S): Chiron Spa, Italy

SOURCE: PCT Int. Appl., 49 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002094868	A2	20021128	WO 2002-IB2637	20020327
WO 2002094868	A3	20030918		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,			

Searcher : Shears 571-272-2528

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SN, TD, TG
EP 1373310 A2 20040102 EP 2002-749141 20020327
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRIORITY APPLN. INFO.: GB 2001-7661 A 20010327
WO 2002-IB2637 W 20020327
AB The invention provides 2821 nucleic acid coding sequences from
Staphylococcus aureus strain NCTC 8325 along with their inferred
translation products. The proteins are useful for **vaccines**
, immunogenic compns., diagnostics, enzymic studies, and also as
targets for antibiotics.
L7 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 22 Nov 2002
ACCESSION NUMBER: 2002:888763 CAPLUS
DOCUMENT NUMBER: 137:383786
TITLE: **Moraxella catarrhalis**
antigens and genes for prophylaxis,
diagnosis and therapy of Moraxella infection
INVENTOR(S): Martin, Denis; Hamel, Josee; Brodeur, Bernard
R.; Rioux, Stephane; Couture, Julie
PATENT ASSIGNEE(S): Shire Biochem Inc., Can.
SOURCE: PCT Int. Appl., 94 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002092625	A2	20021121	WO 2002-CA706	20020515
WO 2002092625	A3	20030710		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,
CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,
SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG

EP 1392831 A2 20040303 EP 2002-729696 20020515
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRIORITY APPLN. INFO.: US 2001-290653P P 20010515
WO 2002-CA706 W 20020515

AB The present invention relates to M. or Branhamella catarrhalis
polynucleotides and polypeptides of which may be useful for
prophylaxis, diagnosis and/or therapy of Moraxella infection. The
polypeptides are BVH-MC2 proteins of M. catarrhalis strains ETSU
C-2, ETSU 658, ETSU T-25, and ETSU M-12; BVH-MC3 protein, BVH-MC4
protein, and BVH-MC5 protein of M. catarrhalis strains ETSU C-2.
The polynucleotides are BVH-MC2 genes, BVH-MC3 gene, BVH-MC4 gene

Searcher : Shears 571-272-2528

10/018672

and BVH-MC5 gene of various strains of *M. catarrhalis*.

L7 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 04 Oct 2002
ACCESSION NUMBER: 2002:754418 CAPLUS
DOCUMENT NUMBER: 137:289983
TITLE: Complete genome of *Streptococcus pneumoniae* and
its proteins and nucleic acids and their uses
for diagnosis infection and antibiotic targets
INVENTOR(S): Massignani, Vega; Tettelin, Herve; Fraser, Claire
PATENT ASSIGNEE(S): Chiron Spa, Italy; The Institute for Genomic
Research
SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002077021	A2	20021003	WO 2002-IB2163	20020327
WO 2002077021	A3	20030828		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1373513	A2	20040102	EP 2002-735782	20020327
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			

PRIORITY APPLN. INFO.: GB 2001-7658 A 20010327
WO 2002-IB2163 W 20020327

AB The invention provides the sequences for 2489 proteins and their genes from *Streptococcus pneumoniae* type 4 strain JNR.7/87, together with the genome sequence comprising 2,162,598 bases in length. Gene knockout mutants indicate several essential genes which may be of value as preferred antibiotic targets. These proteins and genes are useful for the development of **vaccines**, diagnostics, and antibiotics.

L7 ANSWER 10 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 14 May 2002
ACCESSION NUMBER: 2002:359275 CAPLUS
DOCUMENT NUMBER: 137:74443
TITLE: Nucleic acids and proteins from group B
Streptococcus agalactiae and group A
Streptococcus pyogenes
INVENTOR(S): Telford, John; Massignani, Vega; Margarit Y Ros, Immaculada; Grandi, Guido; Fraser, Claire;

Searcher : Shears 571-272-2528

PATENT ASSIGNEE(S): Tettelin, Herve
 Chiron S.P.A., Italy; The Institute for Genomic Research
 SOURCE: PCT Int. Appl., 4525 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002034771	A2	20020502	WO 2001-XB4789	20011029
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
WO 2002034771	A2	20020502	WO 2001-GB4789	20011029
WO 2002034771	A3	20030116		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.:
 GB 2000-26333 A 20001027
 GB 2000-28727 A 20001124
 GB 2001-5640 A 20010307
 WO 2001-GB4789 W 20011029

AB The invention provides proteins from group B streptococcus (*Streptococcus agalactiae*) and group A streptococcus (*Streptococcus pyogenes*), including amino acid sequences and the corresponding nucleotide sequences. The nucleotide sequence of the full genome of *S. agalactiae* strain 2603 V/R is provided as are 5483 protein-coding genes and the amino acid sequences of their protein products. Data are given to show that the proteins are useful antigens for **vaccines**, immunogenic compns., and/or diagnostics. The proteins are also targets for antibiotics to treat or prevent bacterial infection, and in particular, streptococcal infection. [This abstract record is one of three records for this document necessitated by the large number of index entries required to fully index the document and publication constraints.].

L7 ANSWER 11 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

10/018672

ED Entered STN: 14 May 2002
ACCESSION NUMBER: 2002:359274 CAPLUS
DOCUMENT NUMBER: 137:74442
TITLE: Nucleic acids and proteins from group B
Streptococcus agalactiae and group A
Streptococcus pyogenes
INVENTOR(S): Telford, John; Massignani, Vega; Margarit Y Ros,
Immaculada; Grandi, Guido; Fraser, Claire;
Tettelin, Herve
PATENT ASSIGNEE(S): Chiron S.P.A., Italy; The Institute for Genomic
Research
SOURCE: PCT Int. Appl., 4525 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002034771	A2	20020502	WO 2001-XA4789	20011029
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
WO 2002034771	A2	20020502	WO 2001-GB4789	20011029
WO 2002034771	A3	20030116		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.:
GB 2000-26333 A 20001027
GB 2000-28727 A 20001124
GB 2001-5640 A 20010307
WO 2001-GB4789 W 20011029

AB The invention provides proteins from group B streptococcus (Streptococcus agalactiae) and group A streptococcus (Streptococcus pyogenes), including amino acid sequences and the corresponding nucleotide sequences. The nucleotide sequence of the full genome of S. agalactiae strain 2603 V/R is provided as are 5483 protein-coding genes and the amino acid sequences of their protein products. Data are given to show that the proteins are useful antigens for

Searcher : Shears 571-272-2528

vaccines, immunogenic compns., and/or diagnostics. The proteins are also targets for antibiotics to treat or prevent bacterial infection, and in particular, streptococcal infection. [This abstract record is one of three records for this document necessitated by the large number of index entries required to fully index the document and publication constraints.].

L7 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
 ED Entered STN: 03 May 2002
 ACCESSION NUMBER: 2002:332211 CAPLUS
 DOCUMENT NUMBER: 136:364951
 TITLE: Nucleic acids and proteins from group B
 Streptococcus agalactiae and group A
 Streptococcus pyogenes
 INVENTOR(S): Telford, John; Massignani, Vega; Margarit y Ros,
 Immaculada; Grandi, Guido; Fraser, Claire;
 Tettelin, Herve
 PATENT ASSIGNEE(S): Chiron S.P.A., Italy; The Institute for Genomic
 Research
 SOURCE: PCT Int. Appl., 4525 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002034771	A2	20020502	WO 2001-GB4789	20011029
WO 2002034771	A3	20030116		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
WO 2002034771	A2	20020502	WO 2001-XA4789	20011029
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
WO 2002034771	A2	20020502	WO 2001-XB4789	20011029
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD,				

GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
 LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
 NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
 TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY,
 KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH,
 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
 TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
 TD, TG

AU 2002014127 A5 20020506 AU 2002-14127 20011029
 EP 1328543 A2 20030723 EP 2001-982584 20011029

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
 PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.:

GB 2000-26333 A 20001027
 GB 2000-28727 A 20001124
 GB 2001-5640 A 20010307
 WO 2001-GB4789 W 20011029

AB The invention provides proteins from group B streptococcus (*Streptococcus agalactiae*) and group A streptococcus (*Streptococcus pyogenes*), including amino acid sequences and the corresponding nucleotide sequences. The nucleotide sequence of the full genome of *S. agalactiae* strain 2603 V/R is provided as are 5483 protein-coding genes and the amino acid sequences of their protein products. Data are given to show that the proteins are useful antigens for vaccines, immunogenic compns., and/or diagnostics. The proteins are also targets for antibiotics to treat or prevent bacterial infection, and in particular, streptococcal infection. [This abstract record is one of three records for this document necessitated by the large number of index entries required to fully index the document and publication constraints.].

L7 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 06 Nov 2000

ACCESSION NUMBER: 2000:776435 CAPLUS

DOCUMENT NUMBER: 134:53605

TITLE: Antigenic structure of outer membrane protein E of *Moraxella catarrhalis* and construction and characterization of mutants

AUTHOR(S): Murphy, Timothy F.; Brauer, Aimee L.; Yuskiw, Norine; Hiltke, Thomas J.

CORPORATE SOURCE: Division of Infectious Diseases of the Department of Medicine and the Department of Microbiology, State University of New York at Buffalo, and the Veterans Affairs Western New York Healthcare System, Buffalo, NY, 14215, USA

SOURCE: Infection and Immunity (2000), 68(11), 6250-6256
 CODEN: INFIBR; ISSN: 0019-9567

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Outer membrane protein E (OMP E) is a 50-kDa protein of *Moraxella catarrhalis* which possesses several characteristics indicating that the protein will be an effective vaccine antigen. To study the antigenic structure of OMP E, eight monoclonal antibodies were developed and characterized. Three of the antibodies recognized epitopes which

are present on the bacterial surface. Fusion peptides corresponding to overlapping regions of OMP E were constructed, and immunoblot assays were performed to localize the areas of the mol. bound by the monoclonal antibodies. These studies identified a surface-exposed epitope in the region of amino acids 80 through 180. To further study the protein, two mutants which lack OMP E were constructed. In bactericidal assays, the mutants were more readily killed by normal human serum compared to the isogenic parent strains. These results indicate that OMP E is involved in the expression of serum resistance of *M. catarrhalis*.

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L7 ANSWER 14 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 17 Dec 1999

ACCESSION NUMBER: 1999:795970 CAPLUS

DOCUMENT NUMBER: 132:20305

TITLE: Protein BASB021 and its encoding polynucleotides
from *Moraxella catarrhalis* strains and use for
diagnosis of and vaccine against
otitis media

INVENTOR(S): Thonnard, Joelle

PATENT ASSIGNEE(S): Smithkline Beecham Biologicals SA, Belg.

SOURCE: PCT Int. Appl., 88 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9964602	A2	19991216	WO 1999-EP3824	19990531
WO 9964602	A3	20000203		
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2329682	AA	19991216	CA 1999-2329682	19990531
AU 9945050	A1	19991230	AU 1999-45050	19990531
EP 1086229	A2	20010328	EP 1999-927846	19990531
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
US 6649171	B1	20031118	US 2000-719190	20001208
PRIORITY APPLN. INFO.:			GB 1998-12440	A 19980609
			WO 1999-EP3824	W 19990531

AB Claimed are BASB021 polypeptides and polynucleotides encoding BASB021 polypeptides from *Moraxella catarrhalis* (also known as *Branhamella catarrhalis*) strains, methods for producing such polypeptides by recombinant techniques, and methods for their use in

10/018672

diagnostics for detecting infection by certain pathogens,
specifically otitis media, and as **vaccines** against
bacterial infection.

L7 ANSWER 15 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 19 Nov 1999
ACCESSION NUMBER: 1999:736939 CAPLUS
DOCUMENT NUMBER: 131:348195
TITLE: Protein BASB020 and its encoding polynucleotides
from Moraxella catarrhalis strains and use for
diagnosis of and **vaccine** against
otitis media
INVENTOR(S): Thonnard, Joelle
PATENT ASSIGNEE(S): Smithkline Beecham Biologicals SA, Belg.
SOURCE: PCT Int. Appl., 113 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9958684	A2	19991118	WO 1999-EP3257	19990507
WO 9958684	A3	20000224		
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2328502	AA	19991118	CA 1999-2328502	19990507
AU 9941421	A1	19991129	AU 1999-41421	19990507
AU 737196	B2	20010809		
EP 1078064	A2	20010228	EP 1999-924948	19990507
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI			
TR 200003345	T2	20010321	TR 2000-200003345	19990507
BR 9911773	A	20020305	BR 1999-11773	19990507
JP 2002514425	T2	20020521	JP 2000-548475	19990507
NZ 508322	A	20021220	NZ 1999-508322	19990507
NO 2000005697	A	20010110	NO 2000-5697	20001110
ZA 2000006522	A	20011129	ZA 2000-6522	20001110
PRIORITY APPLN. INFO.:			GB 1998-10285	A 19980513
			WO 1999-EP3257	W 19990507

AB Claimed are BASB020 polypeptides and polynucleotides encoding
BASB020 polypeptides from Moraxella catarrhalis (also known as
Branhamella catarrhalis) strains, methods for producing such
polypeptides by recombinant techniques, and methods for their use in
diagnostics for detecting infection by certain pathogens,
specifically otitis media, and as **vaccines** against
bacterial infection.

10/018672

L7 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 19 Nov 1999

ACCESSION NUMBER: 1999:736935 CAPLUS
DOCUMENT NUMBER: 131:348194
TITLE: Protein BASB010 and its encoding polynucleotides
from Moraxella catarrhalis strains and use for
diagnosis of and vaccine against
otitis media
INVENTOR(S): Thonnard, Joelle
PATENT ASSIGNEE(S): Smithkline Beecham Biologicals SA, Belg.
SOURCE: PCT Int. Appl., 100 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9958682	A2	19991118	WO 1999-EP3254	19990507
WO 9958682	A3	20000127		
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2328141	AA	19991118	CA 1999-2328141	19990507
AU 9942600	A1	19991129	AU 1999-42600	19990507
EP 1078065	A2	20010228	EP 1999-950353	19990507
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
US 6627728	B1	20030930	US 2001-700336	20010716
PRIORITY APPLN. INFO.:			GB 1998-10195	A 19980512
			GB 1999-5308	A 19990308
			WO 1999-EP3254	W 19990507

AB Claimed are BASB010 polypeptides and polynucleotides encoding BASB010 polypeptides from Moraxella catarrhalis (also known as Branhamella catarrhalis) strains, methods for producing such polypeptides by recombinant techniques, and methods for their use in diagnostics for detecting infection by certain pathogens, specifically otitis media, and as vaccines against bacterial infection.

L7 ANSWER 17 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 19 Nov 1999

ACCESSION NUMBER: 1999:736754 CAPLUS
DOCUMENT NUMBER: 131:348191
TITLE: Protein BASB009 and its encoding polynucleotides
from Moraxella catarrhalis strains and use for
diagnosis of and vaccine against
otitis media
INVENTOR(S): Thonnard, Joelle

Searcher : Shears 571-272-2528

10/018672

PATENT ASSIGNEE(S): Smithkline Beecham Biologicals SA, Belg.
 SOURCE: PCT Int. Appl., 99 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9958562	A2	19991118	WO 1999-EP3262	19990510
WO 9958562	A3	20010517		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2328061	AA	19991118	CA 1999-2328061	19990510
AU 9942601	A1	19991129	AU 1999-42601	19990510
EP 1086127	A1	20010328	EP 1999-950345	19990510
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI				

PRIORITY APPLN. INFO.: GB 1998-10193 A 19980512
 WO 1999-EP3262 W 19990510

AB Claimed are BASB009 polypeptides and polynucleotides encoding BASB009 polypeptides from *Moraxella catarrhalis* (also known as *Branhamella catarrhalis*) strains, methods for producing such polypeptides by recombinant techniques, and methods for their use in diagnostics for detecting infection by certain pathogens, specifically otitis media, and as **vaccines** against bacterial infection.

L7 ANSWER 18 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 24 Jan 1993

ACCESSION NUMBER: 1993:17456 CAPLUS

DOCUMENT NUMBER: 118:17456

TITLE: Use of the *purA* gene as a selectable marker in stabilization and integration of plasmid or bacteriophage cloning vectors

INVENTOR(S): Brey, Robert Newton, III; Fulginiti, James Peter; Anilionis, Algis

PATENT ASSIGNEE(S): American Cyanamid Co., USA

SOURCE: Eur. Pat. Appl., 29 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 512260	A2	19921111	EP 1992-105887	19920406

Searcher : Shears 571-272-2528

10/018672

EP 512260	A3	19930728		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, PT, SE				
AT 202800	E	20010715	AT 1992-105887	19920406
ES 2160573	T3	20011116	ES 1992-105887	19920406
PT 512260	T	20011228	PT 1992-105887	19920406
JP 05192161	A2	19930803	JP 1992-134375	19920428
JP 3320095	B2	20020903		
NO 9201729	A	19921104	NO 1992-1729	19920430
CA 2067862	AA	19921104	CA 1992-2067862	19920501
CA 2067862	C	20031230		
AU 9215959	A1	19921105	AU 1992-15959	19920501
AU 654347	B2	19941103		
US 5919663	A	19990706	US 1995-380297	19950130
US 5961983	A	19991005	US 1995-448907	19950524
GR 3036487	T3	20011130	GR 2001-401346	20010831
PRIORITY APPLN. INFO.:			US 1991-695706	A 19910503
			US 1994-204903	B1 19940302
			US 1995-380297	A3 19950130

AB Host bacteria carrying deletions in the purA gene (for adenylosuccinate synthetase) are used as hosts for cloning vectors carrying the purA gene as a selectable marker. The vector is stabilized by selection and the purA gene also acts as a site for integration of the plasmid. The use of these vectors does not involve the use of antibiotic resistance markers and is therefore particularly suitable for hosts used in live **vaccines**. A pUC8-based plasmid carrying the Escherichia coli purA gene and the gene for the nontoxic subunit of the E. coli heat-labile enterotoxin was constructed and introduced into Salmonella dublin, S. typhimurium or Salmonella **vaccine** strains carrying deletions in the purA gene and transformants selected on minimal medium. This plasmid was maintained in cultures grown on a minimal medium without loss for 80 generations but lost rapidly in the absence of selection (1% retention in 40 generations). When the purA gene was used in integrating vectors the prototrophic phenotype was 100% stable for at least 80 generations in the presence or absence of selection.

L7 ANSWER 19 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 29 Sep 1990

ACCESSION NUMBER: 1990:510481 CAPLUS

DOCUMENT NUMBER: 113:110481

TITLE: **Fusion proteins** of flagellin
and heterologous epitopes and attenuated
bacteria expressing the chimeric genes as
vaccines

INVENTOR(S): Marjarian, William Robert; Stocker, Bruce Arnold
Dunbar, Newton, Salete Maria Cardozo

PATENT ASSIGNEE(S): Praxis Biologics, Inc., USA; Leland Stanford
Junior University

SOURCE: PCT Int. Appl., 137 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

Searcher : Shears 571-272-2528

10/018672

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8910967	A1	19891116	WO 1989-US1932	19890505
W: AU, DK, FI, JP, KR, NO				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
AU 8936979	A1	19891129	AU 1989-36979	19890505
AU 637049	B2	19930520		
EP 419513	A1	19910403	EP 1989-906507	19890505
EP 419513	B1	19950426		
R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
JP 04502402	T2	19920507	JP 1989-505981	19890505
JP 2793673	B2	19980903		
AT 121782	E	19950515	AT 1989-906507	19890505
DK 9002633	A	19910104	DK 1990-2633	19901102
NO 9004806	A	19910103	NO 1990-4806	19901105
US 6130082	A	20001010	US 1992-837668	19920214

PRIORITY APPLN. INFO.:

US 1988-190570	A	19880505
US 1989-348430	B1	19890505
WO 1989-US1932	A	19890505

AB **Fusion proteins** of flagellin and an antigenic epitope prepared by expression of the chimeric gene are used as **vaccines**. Similarly, the bacterium expressing the chimeric gene is also used in **vaccines**. Vertebrate hosts can be **immunized** by administering an invasive, but attenuated, bacterium that is transfected with a recombinant DNA encoding the **fusion protein** to elicit cellular or humoral immune response. Expression of heterologous parasitic, bacterial, and viral epitopes, e.g. malarial circumsporozoite protein antigen, the B subunit of cholera toxin, the epitope of the CRM197 protein (residues 366-383; a mutant or Diphtheria toxin) hepatitis B virus surface antigen, and rotavirus VP7 antigen, with Salmonella flagellin in attenuated Salmonella were demonstrated and their immunogenicity observed

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 12:42:01 ON 23 JUN 2004)

L8 25 S L6
 L9 24 S L8 NOT L2
 L10 24 DUP REM L9 (0 DUPLICATES REMOVED)

L10 ANSWER 1 OF 24 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2003-140542 [13] WPIDS
 DOC. NO. CPI: C2003-035744
 TITLE: Novel immunogenic mutant cholera holotoxin for preparing immunogenic composition for enhancing immune response of vertebrate host to bacterial or viral antigen, has reduced toxicity compared to wild-type cholera toxin.
 DERWENT CLASS: B04 C06 D16
 INVENTOR(S): GREEN, B A; HOLMES, R K; JOBLING, M G; ZHU, D
 PATENT ASSIGNEE(S): (COLS) UNIV COLORADO; (AMHP) WYETH HOLDINGS CORP; (AMCY) AMERICAN CYANAMID CO
 COUNTRY COUNT: 101
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
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Searcher : Shears 571-272-2528

 WO 2002098368 A2 20021212 (200313)* EN 89
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC
 MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW
 W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ
 DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP
 KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ
 NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ
 UA UG US UZ VN YU ZA ZM ZW
 EP 1404368 A2 20040407 (200425) EN
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK
 NL PT RO SE SI TR

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002098368	A2	WO 2002-US20978	20020605
EP 1404368	A2	EP 2002-752145	20020605
		WO 2002-US20978	20020605

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1404368	A2 Based on	WO 2002098368

PRIORITY APPLN. INFO: US 2001-296537P 20010607

AN 2003-140542 [13] WPIDS

AB WO 200298368 A UPAB: 20030224

NOVELTY - An immunogenic, mutant cholera holotoxin (CT-CRM) (I) comprising an amino acid sequence of subunit A of the wild-type cholera toxin (CT), where the subunit A comprises an amino acid substitution in the wild-type CT subunit A amino acid position 16 or 72, and the mutant CT-CRM has reduced toxicity compared to the wild-type CT, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an immunogenic composition (C) comprising (I) which enhances the immune response in a vertebrate host to an antigen;
- (2) an isolated an purified DNA sequence (II) encoding (I);
- (3) a nucleic acid molecule (III) comprising an isolated and purified nucleic acid sequence encoding (I) and where the sequence encoding (I) is operatively linked to regulatory sequences enabling expression of (I) in a host cell;
- (4) a host cell transformed, transduced, infected or transfected with (III); and
- (5) producing (I).

ACTIVITY - Immunosuppressive; Nootropic; Neuroprotective; Cytostatic; Antibacterial; Virucide; Antiparasitic; Fungicide.
 No biological data is given.

MECHANISM OF ACTION - Immune response enhancer (claimed).

Immune response of Balb/c mice immunized with recombinant P4 outer membrane protein (RP4) of non-typable Haemophilus influenzae (NTHI) alone or in conjunction with (I), was investigated. The ability of mutant CT-CRM16A to enhance the

induction of systemic and mucosal antibodies to recombinant P4 outer membrane protein, (rP4) were then assessed. Serum and mucosal anti-P4 antibody titers induced by mutant CT-CRMI16A, were assessed and compared with that of wild-type CT and mutant CT-CRME29G. Balb/c mice were immunized intranasally (IN) at weeks 0, 3 and 5 and at week 5, day 6 with a formulation containing 1 micro g of recombinant P4 protein in saline or 1 micro g of P4 together with 1 micro g of wild-type CT, 1 micro g of CT-CRME29H or 0.1 or 10 micro g of CT-CRMI16A. The result indicated that the CT-CRMI16A, like that wild-type CT and CT-CRME29H, augmented the capacity of rP4 protein to elicit systemic and mucosal immune responses. Six weeks after primary IN immunization the anti-rP4 IgG antibody titers of mice immunized with rP4 protein formulated with either CT-CRMI16A or CT-CRME29H were 40 times greater than that of mice immunized with the recombinant proteins in phosphate buffered saline (PBS) alone. The antibody titers (IgG) of mice administered the recombinant proteins plus wild-type CT holotoxin at a concentration of 1 micro g were elevated 67-fold in comparison to antibody titers in mice administered recombinant rP4 alone in saline. The antibody titers of mice immunized with 1 micro g of the mutant CT-CRM, CT-CRME29H were elevated 55-fold over antibody titers in mice immunized with rP4 alone. In comparison, the antibody titers of mice immunized with 1 micro g and 0.1 micro g of the mutant CT-CRM, CT-CRMI16A, were increased 15-fold and 27-fold, respectively over the anti-rP4 antibody titers in mice immunized with rP4 alone in saline.

USE - (C) is useful for enhancing the immune response of a vertebrate host to an **antigen**. (I) in combination with **antigen** from a pathogenic bacterium, virus, fungus, parasite, a cancer cell, a tumor cell and allergen, a self molecule, or vertebrate **antigen**, for preparing an immunogenic composition and thus enhances the immune response in a vertebrate host to the **antigen**. The bacterial **antigen** is from any one of the 35 bacterial species given in the specification, e.g. typable and non-typable *Haemophilus influenzae*, *H. somnus*, *Moraxella catarrhalis*, *Streptococcus pneumoniae*. The *H. influenzae* **antigen** is selected from *H. influenzae* P4 or P6 outer membrane protein, and *H. influenzae* adherence and penetration protein (Haps). The *Helicobacter pylori* **antigen** is *Helicobacter pylori* urease protein. The *Neisseria meningitidis* **antigen** is selected from *N. meningitidis* Group B recombinant class I pilin (rpilin) and the *N. meningitidis* Group B class 1 outer membrane protein (P or A). The viral **antigen** is from any one of the 36 viral species given in the specification e.g. respiratory syncytial virus, herpes simplex virus (HSV), Hepatitis B virus. The respiratory syncytial virus **antigen** is the respiratory syncytial virus **fusion protein**. The HSV **antigen** is HSV type 2 glycoprotein D (gD2). The fungal **antigen** is from a fungus such as *Aspergillus*, *Blastomyces*, *Candida*, *Coccidioides*, *Cryptococcus* or *Histoplasma*. The parasite **antigen** is from a parasite such as *Leishmania major*, *Ascaris*, *Trichuris*, *Giardia*, *Schistosoma*, *Cryptosporidium*, *Trichomonas*, *Toxoplasma gondii* or *Pneumocystis carinii*. The cancer or tumor cell **antigen** is a prostate specific **antigen**, carcino-embryonic **antigen**, MUC-1, Her2,

CA-125, MAGE-3, hormone or a hormone analogs. The **antigen** is a polypeptide, peptide or a fragment derived from amyloid precursor protein, or an allergen. The amyloid precursor protein **antigen** is an A beta peptide, which is a 42 amino acid fragment of amyloid precursor protein, or a fragment of A beta peptide. (II) is useful for producing (I), and in in vivo production of (I) in a cell. (All claimed.) (I) is useful as an adjuvant in immunogenic compositions to enhance the immune response in a vertebrate host to a selected **antigen** from a pathogenic bacterium, virus, fungus, or parasite, cancer cell, tumor cell, allergen, or self molecule. (I) is useful for the prevention and/or treatment of diseases caused by pathogenic bacteria, virus, fungus or parasite and non-infection diseases such as allergy, autoimmune disease, Alzheimer's disease and cancer, for eliciting a therapeutic or prophylactic anti-cancer effect, for moderating response to allergens in a vertebrate host, for preventing or treating disease characterized by amyloid deposition in a vertebrate host.

ADVANTAGE - (I) has reduced toxicity compared to wild-type cholera holotoxin (claimed).
Dwg.0/0

L10 ANSWER 2 OF 24 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2001-308137 [32] WPIDS
DOC. NO. CPI: C2001-095175
TITLE: Novel BASB132 polypeptides of Moraxella catarrhalis useful for diagnostic, prophylactic and therapeutic purposes against microbial diseases, preferably bacterial infections.
DERWENT CLASS: B04 D16
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001023416	A2	20010405	(200132)*	EN	26
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000077846	A	20010430	(200142)		
EP 1216302	A2	20020626	(200249)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
JP 2003511013	W	20030325	(200330)	130	
CN 1402785	A	20030312	(200339)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001023416	A2	WO 2000-EP9495	20000926

Searcher : Shears 571-272-2528

10/018672

AU 2000077846	A	AU 2000-77846	20000926
EP 1216302	A2	EP 2000-967819	20000926
		WO 2000-EP9495	20000926
JP 2003511013	W	WO 2000-EP9495	20000926
		JP 2001-526566	20000926
CN 1402785	A	CN 2000-816501	20000926

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000077846	A Based on	WO 2001023416
EP 1216302	A2 Based on	WO 2001023416
JP 2003511013	W Based on	WO 2001023416

PRIORITY APPLN. INFO: GB 1999-23156 19990930

AN 2001-308137 [32] WPIDS

AB WO 200123416 A UPAB: 20010611

NOVELTY - An isolated BASB132 polypeptide (I) of *Moraxella catarrhalis*, comprising a sequence having at least 85% identity to a sequence (S1) comprising 1672 or 992 amino acids fully defined in the specification, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an isolated polypeptide (Ia) of 1672 or 992 amino acids fully defined in the specification;

(2) an immunogenic fragment (Ib) of S1 with the same immunogenic activity of (Ia);

(3) an isolated polynucleotide (II) encoding, or comprising a sequence encoding (I), (Ia) or (Ib), or its complement;

(4) an isolated polynucleotide (IIa) comprising a sequence encoding (I), or its complement;

(5) an isolated polynucleotide (IIb) comprising a nucleotide sequence having at least 85% identity to (II) or its complement;

(6) an isolated polynucleotide (IIc) comprising a sequence having at least 85% identity to a sequence (S2) comprising 5019 or 2979 nucleotides fully defined in the specification, or its complement;

(7) an isolated polynucleotide (IIId) comprising S2;

(8) an isolated polynucleotide (IIe) comprising a sequence encoding S1, obtainable by screening an appropriate library under stringent hybridization conditions with a labeled probe comprising S2;

(9) an expression vector (III) or a recombinant live microorganism, comprising (II)-(IIe);

(10) a host cell (IV) comprising (III), or a sub-cellular fraction or membrane of (IV) expressing (I);

(11) producing (I)-(Ib);

(12) expressing (II)-(IIe) by transforming (IV) with (III) and culturing the transformed host cell;

(13) a vaccine composition (V) comprising (I)-(Ib), or (II)-(IIe);

(14) an antibody (Ab) immunospecific for (I), (Ia) or (Ib);

(15) diagnosing *M. catarrhalis* infection, by identifying (I)-(Ib) or Ab present within a biological sample from an animal suspected of having such an infection; and

Searcher : Shears 571-272-2528

10/018672

(16) a therapeutic composition (T) useful in treating humans with M.catarrhalis infection, comprising (Ab).

ACTIVITY - Antibacterial; antimicrobial.

MECHANISM OF ACTION - Vaccine. Experimental protocols are given, but no results are given.

USE - (V) is useful for preparing a medicament for use in generating immune response in an animal. (T) is useful for treating humans with M.catarrhalis disease (claimed). BASB132 polypeptides and polynucleotides are useful for preventing and treating microbial diseases, and are useful as diagnostic reagents. (II) has utility in diagnosis of the stage and type of infection, and also for therapeutic or prophylactic purposes, in particular genetic immunization. BASB132 polynucleotides are useful as components of polynucleotide arrays, preferably high density arrays or grids.

Dwg.0/4

L10 ANSWER 3 OF 24 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2001-244806 [25] WPIDS
DOC. NO. NON-CPI: N2001-174293
DOC. NO. CPI: C2001-073477
TITLE: Novel BASB128 polypeptides of Moraxella catarrhalis useful for diagnostic, prophylactic and therapeutic purposes against microbial diseases, preferably bacterial infections.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS; (SMIK) SMITHKLINE BEECHAM BIOLOGICS SA
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001019997	A2	20010322	(200125)*	EN	90
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE					
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG					
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ					
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN					
YU ZA ZW					
AU 2000079041	A	20010417	(200140)		
EP 1212427	A2	20020612	(200239)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK					
NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001019997	A2	WO 2000-EP9036	20000914
AU 2000079041	A	AU 2000-79041	20000914
EP 1212427	A2	EP 2000-969255	20000914
		WO 2000-EP9036	20000914

Searcher : Shears 571-272-2528

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000079041	A Based on	WO 2001019997
EP 1212427	A2 Based on	WO 2001019997

PRIORITY APPLN. INFO: GB 1999-21692 19990914

AN 2001-244806 [25] WPIDS

AB WO 200119997 A UPAB: 20010508

NOVELTY - An isolated BASB128 polypeptide (I) of *Moraxella catarrhalis*, comprising at least 85 % identity to a 506 residue amino acid sequence (S1), fully defined in the specification, over the entire length of (S1), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an isolated polypeptide (Ia) comprising (S1);
- (2) an immunogenic fragment (Ib) of S1 with the same immunogenic activity of (Ia);
- (3) an isolated polynucleotide (II) encoding, or comprising a sequence encoding (I), (Ia) or (Ib);
- (4) an isolated polynucleotide (IIa) comprising a sequence encoding (I), or its complement;
- (5) an isolated polynucleotide (IIb) having at least 85 % identity to (II), or its complement;
- (6) an isolated polynucleotide (IIc) having at least 85 % identity to a 1524 or 1521 base pair sequence (S2), both fully defined in the specification, or its complement;
- (7) an isolated polynucleotide (IId) comprising S2;
- (8) an isolated polynucleotide (IIe) encoding S1, obtained by screening a library under stringent hybridization conditions with labeled probe comprising S2 or its fragment;
- (9) an expression vector (III) of a recombinant live microorganism, comprising (II)-(IIe);
- (10) a host cell (IV) comprising (III), or a subcellular fraction or membrane of (IV) expressing (I);
- (11) producing (I), by culturing (IV) and recovering (I) from the culture medium;
- (12) expressing (II)-(IIe) by transforming (IV) with (III) and culturing transformed (IV) under conditions sufficient for its expression;
- (13) a vaccine composition (V) comprising (I)-(Ib), or (II)-(IIe);
- (14) an antibody (Ab) immunospecific for (I), (Ia) or (Ib);
- (15) diagnosing *Moraxella catarrhalis* infection, by identifying (I)-(Ib) or Ab present within a biological sample from an animal;

and

- (16) a therapeutic composition (T) comprising (Ab).

ACTIVITY - Antibacterial; antimicrobial.

MECHANISM OF ACTION - Vaccine; gene therapy.

No biological data is given.

USE - (V) is useful for preparing a medicament for use in generating an immune response in an animal. (T) is useful for treating humans with *Moraxella catarrhalis* disease. (All claimed). (I) and (II) are useful for treating bacterial infections, and as research reagents and

materials for the treatment and diagnosis of diseases, particularly human diseases. (I) or (II) is useful as **antigens** to produce Ab. Ab is useful for isolating or identifying clones expressing (I) or (II), and for treating infections, particularly bacterial infections. (I) and (II) are useful for inducing an immune response in an individual, and to assess the binding of small molecule substrates and ligands in, e.g. cells, cell-free preparations, chemical libraries, and natural product mixtures. (I), (II) and Ab are useful to configure screening methods for detecting the effect of added compounds on the production of mRNA and/or polypeptide in cells. (I), (II) or their agonist or antagonists are useful for interfering with the initial physical interaction between a pathogen or pathogens and a eukaryotic, preferably mammalian host responsible for sequelae of infection. (II) is useful for therapeutic or prophylactic purposes, in particular genetic **immunization** and in diagnosis of the stage and type of infection. (II) is useful as components of polynucleotide arrays, preferably high density arrays or grids.

Dwg.0/0

L10 ANSWER 4 OF 24 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-257883 [26] WPIDS
 DOC. NO. CPI: C2001-077723
 TITLE: Novel BASB109 polypeptides of Moraxella catarrhalis useful for diagnostic, prophylactic and therapeutic purposes against microbial diseases, preferably bacterial infections.
 DERWENT CLASS: B04 D16
 INVENTOR(S): THONNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001019996	A1	20010322	(200126)*	EN	92
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000075191	A	20010417	(200140)		
EP 1212426	A1	20020612	(200239)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001019996	A1	WO 2000-EP9035	20000914
AU 2000075191	A	AU 2000-75191	20000914
EP 1212426	A1	EP 2000-964177	20000914
		WO 2000-EP9035	20000914

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000075191	A Based on	WO 2001019996
EP 1212426	A1 Based on	WO 2001019996

PRIORITY APPLN. INFO: GB 1999-21691 19990914

AN 2001-257883 [26] WPIDS

AB WO 200119996 A UPAB: 20010515

NOVELTY - An isolated BASB109 polypeptide (I) of *Moraxella catarrhalis*, comprising a sequence having at least 85% identity to a sequence (S1) comprising 502 amino acids (aa) fully defined in the specification, over the entire length of (S1), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an isolated polypeptide (Ia) of 502 aa;
- (2) an immunogenic fragment (Ib) of S1 with the same immunogenic activity as (Ia);
- (3) an isolated polynucleotide (II) encoding, or comprising a sequence encoding (I), (Ia) or (Ib);
- (4) an isolated polynucleotide (IIa) comprising a sequence encoding (I), or its complement;
- (5) an isolated polynucleotide (IIb) comprising a nucleotide sequence having at least 85% identity to (II) or its complement;
- (6) an isolated polynucleotide (IIc) comprising a sequence having at least 85% identity to a sequence (S2) comprising 1509 or 1506 base pairs (bp) fully defined in the specification, or its complement;
- (7) an isolated polynucleotide (IId) comprising a polynucleotide sequence encoding S1;
- (8) an isolated polynucleotide (IIe) comprising S2;
- (9) an isolated polynucleotide (IIIf) comprising a nucleotide (nt) sequence encoding S1, obtainable by screening an appropriate library under stringent hybridization conditions with labeled probe comprising S2 or its fragment;
- (10) an expression vector (III) or a recombinant live microorganism, comprising (II)-(IIIf);
- (11) a host cell (IV) comprising (III), or a subcellular fraction or membrane of (IV) expressing (I);
- (12) producing (I)-(Ib);
- (13) expressing (II)-(IIIf) by transforming (IV) with (III) and culturing transformed (IV) under conditions sufficient for expression;
- (14) a vaccine composition (V) comprising (I)-(Ib), or (II)-(IIIf);
- (15) an antibody (Ab) immunospecific for (I), (Ia) or (Ib); and
- (16) diagnosing *Moraxella catarrhalis* infection, by identifying (I)-(Ib) or Ab specific for (I)-(Ib) present within a biological sample from an animal suspected of having such an infection.

ACTIVITY - Antibacterial. Experimental protocols are described, but no results are given.

MECHANISM OF ACTION - Vaccine. Experimental protocols are described, but no results are given.

USE - (I) and (II) are useful for treating bacterial

infections, and as research reagents and materials for the treatment of and diagnosis of diseases, particularly human diseases. (I) or (II) is useful as antigens to produce Ab. (I) and (II) are useful for inducing an immune response in an individual, and to assess the binding of small molecule substrates and ligands in, for e.g. cells, cell-free preparations, chemical libraries, and natural product mixtures. (I), (II) and Ab are useful to configure screening methods for detecting the effect of added compounds on the production of mRNA and/or polypeptide in cells. (I) or (II) is useful for interfering with the initial physical interaction between a pathogen or pathogens and a eukaryotic, preferably mammalian host responsible for sequelae of infection.

(II) is useful for therapeutic or prophylactic purposes, in particular genetic immunization and in diagnosis of the stage and type of infection. (II) is useful as a component of polynucleotide arrays, preferably high density arrays or grids for diagnosis and prognosis, and are used in oligonucleotide probe arrays to conduct screening of e.g. genetic mutation, serotyping etc.

Ab is useful for isolating or identifying clones expressing (I) or (II); for treating infections, particularly bacterial infections; and in affinity chromatography to purify polypeptides and polynucleotides of the invention.

(V) is useful for preparing a medicament for use in generating an immune response in an animal (claimed). The antibody is useful in a therapeutic composition for treating humans with *Moraxella catarrhalis* disease (claimed).

Dwg.0/0

L10 ANSWER 5 OF 24 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-244783 [25] WPIDS
 DOC. NO. NON-CPI: N2001-174285
 DOC. NO. CPI: C2001-073454
 TITLE: Novel BASB129-BASB131 polypeptides isolated from *Moraxella catarrhalis* bacterium useful as a diagnostic reagent for *M. catarrhalis* infections and for producing **vaccines** against otitis media and pneumonia.
 DERWENT CLASS: B04 D16 S03
 INVENTOR(S): THONNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001019862	A2	20010322	(200125)*	EN	80
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE					
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG					
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ					
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN					
YU ZA ZW					
AU 2001013839	A	20010417	(200140)		
EP 1214339	A2	20020619	(200240)	EN	

10/018672

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK
NL PT RO SE SI

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001019862	A2	WO 2000-EP9034	20000914
AU 2001013839	A	AU 2001-13839	20000914
EP 1214339	A2	EP 2000-975853	20000914
		WO 2000-EP9034	20000914

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001013839	A Based on	WO 2001019862
EP 1214339	A2 Based on	WO 2001019862

PRIORITY APPLN. INFO: GB 1999-22829 19990925; GB
1999-21693 19990914; GB
1999-21694 19990914

AN 2001-244783 [25] WPIDS

AB WO 200119862 A UPAB: 20010508

NOVELTY - Isolated *Moraxella catarrhalis* BASB129-BASB131 polypeptides (I) comprising a fully defined sequence of 344 (S2), 678 (S4), 469 (S6) amino acids, respectively as given in the specification, or an isolated polypeptide (Ia) which has 85% identity to (S2), (S4) or (S6), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an immunogenic fragment (II), of (I) which has the same immunogenic activity as (I);

(2) an isolated polynucleotide (III), or its complementary nucleotide sequence comprising a nucleotide sequence:

(i) encoding a polypeptide that has 85% identity over the entire length of (S2), (S4), (S6);

(ii) that has 85% identity over the entire length of the nucleotide sequence encoding region which encodes (S2), (S4), (S6);

(iii) which has 85% identity over the entire length of a fully defined nucleotide sequence of 1035 (S1), 2037 (S3), 1410 (S5), base pairs as given in the specification;

(iv) comprising a nucleotide sequence encoding (I) obtainable by screening an appropriate library under stringent hybridization conditions with a labeled probe having the sequence of (S1), (S3), (S5);

(v) encoding (S2), (S4) or (S6); or

(vi) an isolated polynucleotide comprising (S1), (S3) or (S5);

(3) an expression vector (IV), or a recombinant live microorganism comprising (III);

(4) a host cell (V) comprising (IV), or a subcellular fraction or membrane of the host cell expressing (I);

(5) preparation of (I) or (II);

(6) expressing (III) involves transforming (V) with (IV) which contains any one of the polynucleotides (III) given above and culturing (V) under suitable conditions to express (III);

Searcher : Shears 571-272-2528

- (7) a **vaccine** composition which comprises (I) or (II);
- (8) a **vaccine** composition which comprises (III);
- (9) an antibody (Ab) immunospecific for (I) or (II); and
- (10) a therapeutic composition comprising an antibody directed against (I) useful in treating humans with M.catarrhalis disease.

ACTIVITY - Antiinflammatory; auditory.

MECHANISM OF ACTION - Gene therapy; **vaccine**; initial physical attraction between a pathogen and a mammalian extracellular matrix protein inhibitor.

The biological activity of (I) was tested in mice. Groups of mice were **immunized** with BASB129, BASB130 and BASB131 **vaccine**. After the booster, the mice were challenged by bacterial suspension into the nostril under anesthesia. Mice were killed between 30 minutes and 24 hours after challenge and the lungs were removed and homogenized. The log10 weighted mean number of colony forming unit (CFU)/lung was determined by counting the colonies grown on agar plates after plating of dilutions of the homogenate. The arithmetic mean of the log10 weighted mean number of CFU/lung and the standard deviations were calculated for each group. Results were analyzed statistically. Results showed that BASB129, BASB130 and BASB131 **vaccine** induced significant lung clearance as compared to the control group.

USE - The composition comprising (I), (II) or (III) is useful for preparation of a medicament used for generating an immune response in an animal. (I) is also useful as diagnostic reagent for M.catarrhalis which involves identifying (I), an antibody against (I) present within the biological sample from an animal suspected of having such an infection (claimed). Fragments of (I) are useful for producing corresponding full length polypeptides by peptide synthesis. The polynucleotides may be used as hybridization probes for RNA, cDNA and genomic DNA to isolate full-length cDNAs and genomic clones encoding BASB129-BASB131 and to isolate cDNA and genomic clones of other genes that have high sequence identity to BASB129-BASB131 gene. The polynucleotide sequences can also be used in the discovery and development of antibacterial compounds. The encoded protein can be used as target for the screening of antibacterial drugs. Additionally, the polynucleotide sequences encoding the amino terminal regions of the encoded protein or Shine-Dalgarno or other translation facilitating sequences of the respective mRNA can be used to construct antisense sequences to control the expression of the coding sequence of interest. The polynucleotides are also useful as diagnostic reagents in which the mutations in the polynucleotide sequence may be detected and used to diagnose and/or prognose the infection or its stage or course. The polynucleotides may be used as components of arrays which have diagnostic and prognostic uses. Antibodies against (I) are useful for treating bacterial infections and to isolate or identify clones expressing (I) or (II), to purify the polypeptides by affinity chromatography. The polynucleotides and polypeptides are used as research reagents and materials for discovery of treatments of and diagnostics for human diseases. The polynucleotides derived from (S1), (S3) or (S5) are used as PCR (polymerase chain reaction) primers. The polynucleotides are also useful in the diagnosis of the stage of infection and type of infection the pathogen has attained. The polypeptides and polynucleotides are used to block the initial

physical interaction between a gram negative and/or gram positive bacteria to mammalian, host thus preventing the sequelae of infection. The polynucleotides encoding certain non-variable regions of bacterial cell surface protein are used in polynucleotide constructs which are useful for genetic **immunization** experiments in animal models of infection with *M. catarrhalis* to identify protein groups able to provoke a prophylactic or therapeutic immune response. The **vaccine** comprising (I), (II) or (III) is useful for treating *Moraxella catarrhalis* infections such as sinusitis, nosocomial infections, otitis media and pneumonia.
Dwg.0/0

L10 ANSWER 6 OF 24 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-159876 [16] WPIDS
 DOC. NO. NON-CPI: N2001-116486
 DOC. NO. CPI: C2001-047628
 TITLE: New BASB117 polypeptides from *Moraxella catarrhalis* strain MC2931 (ATCC 43617), useful as therapeutic agents or **vaccines** against bacterial (especially *M. catarrhalis*) infections, e.g. otitis media or pneumonia.
 DERWENT CLASS: B04 D16 S03
 INVENTOR(S): THONNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009339	A2	20010208	(200116)*	EN	79
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000065688	A	20010219	(200129)		
EP 1206547	A2	20020522	(200241)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009339	A2	WO 2000-EP7422	20000731
AU 2000065688	A	AU 2000-65688	20000731
EP 1206547	A2	EP 2000-953131	20000731
		WO 2000-EP7422	20000731

FILING DETAILS:

PATENT NO	KIND	PATENT NO

AU 2000065688 A Based on WO 2001009339
EP 1206547 A2 Based on WO 2001009339

PRIORITY APPLN. INFO: GB 1999-18206 19990803

AN 2001-159876 [16] WPIDS

AB WO 200109339 A UPAB: 20010323

NOVELTY - *Moraxella catarrhalis* strain MC2931 (ATCC 43617) BASB117 polypeptides, both of 216 amino acids (I and II) as defined in the specification, are new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an isolated polypeptide (P1) comprising an amino acid sequence which has at least 85%, preferably 100%, identity to (I) or (II) over their entire length;

(2) an immunogenic fragment (P2) of the polypeptide, in which the immunogenic activity of the fragment is substantially the same as (I) or (II);

(3) a nucleotide sequence encoding (I), (II), P1 or P2;

(a) a nucleotide sequence encoding (I), (II), P1 or P2;
(b) an isolated polynucleotide comprising a nucleotide sequence encoding a polypeptide that has at least 85%, preferably 95%, identity to (I) or (II) over its entire length, or a nucleotide sequence complementary to the isolated polynucleotide;

(c) an isolated polynucleotide comprising a nucleotide sequence that has at least 85%, preferably 95%, identity to a nucleotide sequence encoding (I) or (II) over the entire coding region, or a nucleotide sequence complementary to the isolated polynucleotide;

(d) an isolated polynucleotide comprising the 648 (III) or 651 basepair (bp) sequence (IV) fully defined in the specification;

(e) an isolated polynucleotide comprising a nucleotide sequence which has at least 85%, preferably 95%, identity to (I) or (II) over its entire length, or a nucleotide sequence complementary to the isolated polynucleotide;

(f) a nucleotide sequence encoding (I) or (II) obtainable by screening an appropriate library, under stringent conditions, with a labeled probe having the sequence of (III), (IV) or its fragments;

(4) an expression vector or a recombinant live microorganism comprising N1;

(5) a host cell comprising the expression vector of (4), or a subcellular fraction or membrane of the host cell expressing P1;

(6) a process for producing (I), (II), P1 or P2 by culturing the host cell of (5);

(7) a process for expressing N1 comprising transforming a host cell with the expression vector of (4) and culturing the host cell;

(8) a vaccine compositions comprising (I), (II), P1 or P2 or N1;

(9) an antibody immunospecific for (I), (II), P1 or P2;

(10) a method for diagnosing a *Moraxella catarrhalis* infection comprising identifying (I), (II), P1 or P2 or the antibody of (9) present within a biological sample from an animal suspected of having such an infection; and

(11) a therapeutic composition for treating humans with *Moraxella catarrhalis* disease, comprising at least one antibody against (I), (II), P1 or P2.

ACTIVITY - Antibacterial; ophthalmological; antiinflammatory.

MECHANISM OF ACTION - Vaccine; gene therapy.

Groups of mice were immunized with the polypeptide (BASB117) or with a killed whole cells (kwc) preparation of *Moraxella catarrhalis* or sham immunized.

After booster, the mice were challenged by instillation of bacterial suspension into the nostril under anaesthesia. Mice were killed between 30 minutes and 24 hours after challenge and the lungs were removed aseptically and homogenized individually. The log10 weighted mean number of colony forming units (CFU)/lung was determined by counting the colonies grown on agar plates after plating of dilutions of the homogenate. The arithmetic mean of the log10 weighted mean number of CFU/lung and the standard deviations were calculated for each group.

No results are given.

USE - The composition comprising an immunologic amount of the polypeptide or polynucleotide is useful for preparing a medicament for generating an immune response in an animal. The therapeutic composition is useful in treating humans with *M. catarrhalis* infection (all claimed). The polypeptides may also be used as prophylactic agents of bacterial infections, particularly *M. catarrhalis* infections in mammals, especially humans. The polynucleotides are useful in therapy or prophylaxis, particularly genetic immunization against these infections or diseases. These diseases include otitis media in infants or children, pneumonia in elderlies, sinusitis, nosocomial infections and invasive diseases, chronic otitis media with hearing loss, fluid accumulation in the middle ear, infection of the upper respiratory tract, or inflammation of the middle ear. The polypeptides or polynucleotides may also be employed as research reagents and materials for discovering treatments of and diagnostics for diseases, particularly human diseases. In particular, the polypeptides or polynucleotides are useful in the discovery and development of antibacterial compounds, or for diagnosing diseases, staging of the disease, determining the response of an infectious organism to drugs.

Dwg.0/2

L10 ANSWER 7 OF 24 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-159875 [16] WPIDS
 DOC. NO. NON-CPI: N2001-116485
 DOC. NO. CPI: C2001-047627
 TITLE: New BASB116 polypeptides from *Moraxella catarrhalis*. strain MC2931 (ATCC 43617), useful as therapeutic agents or vaccines against bacterial (especially *M. catarrhalis*) infections, e.g. otitis media or pneumonia.
 DERWENT CLASS: B04 D16 S03
 INVENTOR(S): THONNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009338	A1	20010208	(200116)*	EN	79
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW MZ NL OA PT SD SE SL SZ TZ UG ZW					

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W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN
YU ZA ZW

AU 2000062788 A 20010219 (200129)

EP 1206545 A1 20020522 (200241) EN

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK
NL PT RO SE SI

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009338	A1	WO 2000-EP7421	20000731
AU 2000062788	A	AU 2000-62788	20000731
EP 1206545	A1	EP 2000-949429	20000731
		WO 2000-EP7421	20000731

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000062788	A Based on	WO 2001009338
EP 1206545	A1 Based on	WO 2001009338

PRIORITY APPLN. INFO: GB 1999-18279 19990803

AN 2001-159875 [16] WPIDS

AB WO 200109338 A UPAB: 20010323

NOVELTY - Two *Moraxella catarrhalis* strain MC2931 (ATCC 43617)
BASB116 polypeptides, both of 98 amino acids (I and II) as defined
in the specification, are new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for
the following:

(1) an isolated polypeptide (P1) comprising an amino acid
sequence which has at least 85%, preferably 100%, identity to (I) or
(II) over their entire length;

(2) an immunogenic fragment (P2) of the polypeptide, in which
the immunogenic activity of the fragment is substantially the same
as (I) or (II);

(3) an isolated polynucleotide (N1) selected from:

(a) a nucleotide sequence encoding (I), (II), P1 or P2;

(b) an isolated polynucleotide comprising a nucleotide sequence
encoding a polypeptide that has at least 85% identity to (I) or (II)
over its entire length, or a nucleotide sequence complementary to
the isolated polynucleotide;

(c) an isolated polynucleotide comprising a nucleotide sequence
that has at least 85%, preferably 95%, identity to a nucleotide
sequence encoding (I) or (II) over the entire coding region, or a
nucleotide sequence complementary to the isolated polynucleotide;

(d) an isolated polynucleotide comprising the 297 (III) or 294
(IV) basepair (bp) sequence fully defined in the specification;

(e) an isolated polynucleotide comprising a nucleotide sequence
which has at least 85%, preferably 95%, identity to (I) or (II) over
its entire length, or a nucleotide sequence complementary to the
isolated polynucleotide;

Searcher : Shears 571-272-2528

(f) a nucleotide sequence encoding (I) or (II) obtainable by screening an appropriate library, under stringent conditions, with a labeled probe having the sequence of (III), (IV) or its fragments;

(4) an expression vector or a recombinant live microorganism comprising N1;

(5) a host cell comprising the expression vector of (4), or a subcellular fraction or membrane of the host cell expressing P1;

(6) a process for producing (I), (II), P1 or P2 by culturing the host cell of (5);

(7) a process for expressing N1 comprising transforming a host cell with the expression vector of (4) and culturing the host cell;

(8) a vaccine compositions comprising (I), (II), P1 or P2 or N1;

(9) an antibody immunospecific for (I), (II), P1 or P2;

(10) a method for diagnosing a *Moraxella catarrhalis* infection comprising identifying (I), (II), P1 or P2 or the antibody of (9) present within a biological sample from an animal suspected of having such an infection; and

(11) a therapeutic composition for treating humans with *Moraxella catarrhalis* disease, comprising at least one antibody against (I), (II), P1 or P2.

ACTIVITY - Antibacterial; ophthalmological; antiinflammatory.

MECHANISM OF ACTION - Vaccine; gene therapy.

Groups of mice were immunized with the polypeptide (BASB116) or with a killed whole cells (kwc) preparation of *Moraxella catarrhalis* or sham immunized.

After booster, the mice were challenged by instillation of bacterial suspension into the nostril under anaesthesia. Mice were killed between 30 minutes and 24 hours after challenge and the lungs were removed aseptically and homogenized individually. The log₁₀ weighted mean number of colony forming units (CFU)/lung was determined by counting the colonies grown on agar plates after plating of dilutions of the homogenate. The arithmetic mean of the log₁₀ weighted mean number of CFU/lung and the standard deviations were calculated for each group.

No results are given.

USE - The composition comprising an immunologic amount of the polypeptide or polynucleotide is useful for preparing a medicament for generating an immune response in an animal. The therapeutic composition is useful in treating humans with *M. catarrhalis* infection (all claimed). The polypeptides may also be used as prophylactic agents of bacterial infections, particularly *M. catarrhalis* infections in mammals, especially humans. The polynucleotides are useful in therapy or prophylaxis, particularly genetic immunization against these infections or diseases. These diseases include otitis media in infants or children, pneumonia in elderlies, sinusitis, nosocomial infections and invasive diseases, chronic otitis media with hearing loss, fluid accumulation in the middle ear, infection of the upper respiratory tract, or inflammation of the middle ear. The polypeptides or polynucleotides may also be employed as research reagents and materials for discovering treatments of and diagnostics for diseases, particularly human diseases. In particular, the polypeptides or polynucleotides are useful in the discovery and development of antibacterial compounds, or for diagnosing diseases, staging of the disease, determining the response of an infectious

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organism to drugs.
Dwg.0/2

L10 ANSWER 8 OF 24 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2001-159874 [16] WPIDS
DOC. NO. NON-CPI: N2001-116484
DOC. NO. CPI: C2001-047626
TITLE: New BASB122 and BASB124 polypeptides and
polynucleotides from Moraxella catarrhalis strain
ATCC 43617, useful as therapeutic agents or
vaccines against bacterial infections, e.g.
otitis media or pneumonia.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009337	A2	20010208	(200116)*	EN	75
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE					
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG					
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ					
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN					
YU ZA ZW					
AU 2000065683	A	20010219	(200129)		
EP 1204749	A2	20020515	(200239)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK					
NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009337	A2	WO 2000-EP7365	20000731
AU 2000065683	A	AU 2000-65683	20000731
EP 1204749	A2	EP 2000-953120	20000731
		WO 2000-EP7365	20000731

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000065683	A Based on	WO 2001009337
EP 1204749	A2 Based on	WO 2001009337

PRIORITY APPLN. INFO: GB 1999-18036 19990730; GB
1999-18034 19990730

AN 2001-159874 [16] WPIDS
AB WO 200109337 A UPAB: 20010323
NOVELTY - New isolated polypeptides, comprising either of two 111
amino acid (I) or two 328 amino acid (II) sequences from Moraxella
catarrhalis, all fully defined in the specification, or an at least

Searcher : Shears 571-272-2528

85 % identical sequence over their entire length, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an isolated polynucleotide encoding the novel polypeptide, comprising:
 - (a) a sequence encoding the novel polypeptide;
 - (b) a sequence having at least 85 % identity to (a) over its entire length;
 - (c) a 336 (III) or 987 (IV) base pair sequence, both fully defined in the specification;
 - (d) a sequence at least 85 % identical to (III) or (IV) over their entire length;
 - (e) the complements of (a)-(d); or
 - (f) a sequence encoding (I) or (II) obtained by screening a library, under stringent conditions, with a labeled probe having (III), (IV), or fragments of them;
- (2) a statement vector or a recombinant live microorganism, comprising the polynucleotide of (1);
- (3) a host cell comprising the vector of (2), or a subcellular fraction or membrane of the host cell expressing the novel polypeptide;
- (4) a process for producing the novel polypeptide, comprising culturing the host cell of (3) under expression conditions, and recovering the polypeptide;
- (5) a process for expressing the polynucleotide of (1), comprising transforming a host cell with the vector of (2), and culturing the cell for expression of the polynucleotide;
- (6) a **vaccine** composition comprising the novel polypeptide or the polynucleotide of (1), and a carrier;
- (7) an antibody immunospecific for the novel polypeptide or its immunological fragment;
- (8) a method for diagnosing a M. catarrhalis infection, comprising identifying the novel polypeptide or the antibody of (7) present within a biological sample; and
- (9) a therapeutic composition comprising at least one antibody against the novel polypeptide.

ACTIVITY - Antibacterial; antiinflammatory; auditory.

MECHANISM OF ACTION - **Vaccine**; gene therapy.

No biological data is given.

USE - The composition comprising an immunologic amount of the polypeptide or polynucleotide is useful for preparing a medicament for generating an immune response in an animal. The therapeutic composition is useful in treating humans with M. catarrhalis infection. (All claimed). The polypeptides may also be used as prophylactic agents of bacterial infections, particularly M. catarrhalis infections in mammals, especially humans. The polynucleotides are useful in therapy or prophylaxis, particularly genetic **immunization** against these infections or diseases. These diseases include otitis media in infants or children, pneumonia in elderlies, sinusitis, nosocomial infections and invasive diseases, chronic otitis media with hearing loss, fluid accumulation in the middle ear, infection of the upper respiratory tract, or inflammation of the middle ear. The polypeptides or polynucleotides may also be employed as research reagents and materials for discovering treatments of and diagnostics for diseases, particularly human diseases. In particular, the

10/018672

polypeptides or polynucleotides are useful in the discovery and development of antibacterial compounds, or for diagnosing diseases, staging of the disease, determining the response of an infectious organism to drugs.

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L10 ANSWER 9 OF 24 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-159873 [16] WPIDS
 DOC. NO. NON-CPI: N2001-116483
 DOC. NO. CPI: C2001-047625
 TITLE: New BASB119 polypeptides and polynucleotides from Moraxella catarrhalis strain ATCC 43617, useful as therapeutic agents or vaccines against bacterial infections, e.g. otitis media or pneumonia.
 DERWENT CLASS: B04 D16 S03
 INVENTOR(S): THONNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009336	A1	20010208	(200116)*	EN	82
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE					
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG					
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ					
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN					
YU ZA ZW					
AU 2000069887	A	20010219	(200129)		
EP 1206549	A1	20020522	(200241)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK					
NL PT RO SE SI					
CN 1377411	A	20021030	(200314)		
JP 2003506045	W	20030218	(200315)		82

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009336	A1	WO 2000-EP7363	20000731
AU 2000069887	A	AU 2000-69887	20000731
EP 1206549	A1	EP 2000-958324	20000731
		WO 2000-EP7363	20000731
CN 1377411	A	CN 2000-813833	20000731
JP 2003506045	W	WO 2000-EP7363	20000731
		JP 2001-514128	20000731

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000069887	A Based on	WO 2001009336
EP 1206549	A1 Based on	WO 2001009336

Searcher : Shears 571-272-2528

JP 2003506045 W Based on

WO 2001009336

PRIORITY APPLN. INFO: GB 1999-18302 19990803

AN 2001-159873 [16] WPIDS

AB WO 200109336 A UPAB: 20010323

NOVELTY - New isolated polypeptides, comprising either of two 171 residue amino acid sequences (I and II) from *Moraxella catarrhalis*, both fully defined in the specification, or a sequence at least 85 % identical to (I) or (II), over their entire length, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an isolated polynucleotide encoding the novel polypeptide, comprising:

- (a) a sequence encoding (I) or (II);
- (b) a sequence having at least 85 % identity to the sequence encoding (I) or (II) over the entire coding region;
- (c) a 516 (III) or 513 (IV) base pair sequence, fully defined in the specification;

(d) a sequence having at least 85 % identity to (III) or (IV) over their entire length;

- (e) the complements of (a)-(d); or
- (f) a sequence encoding (I) or (II) obtained by screening a library, under stringent conditions, with a labeled probe having (III), (IV), or fragments of (III) or (IV);

(2) an statement vector or a recombinant live microorganism comprising the polynucleotide of (1);

(3) a host cell comprising the vector of (2), or a subcellular fraction or membrane of the host cell expressing the novel polypeptide;

(4) a process for producing the novel polypeptide, comprising culturing the cell of (3) under expression conditions, and recovering the polypeptide;

(5) a process for expressing the polynucleotide of (1), comprising transforming a host cell with the vector of (2), and culturing the host cell for expression of the polynucleotide;

(6) **vaccine** compositions comprising the novel polypeptide or the polynucleotide of (1), and a carrier;

(7) an antibody immunospecific for the novel polypeptide or its immunological fragment;

(8) a method for diagnosing a *M. catarrhalis* infection, comprising identifying the novel polypeptide or the antibody present within a biological sample; and

(9) a therapeutic composition comprising at least one antibody against the novel polypeptide.

ACTIVITY - Antibacterial; antiinflammatory; auditory.

MECHANISM OF ACTION - **Vaccine**; gene therapy.

Groups of mice were **immunized** either with the polypeptide (BASB119) adsorbed onto AlPO4 (10 micro g BASB119 onto 100 micro g of AlPO4), with a killed whole cell (kwc) preparation of *M. catarrhalis* strain ATCC 43617 adsorbed onto AlPO4, or with 100 micro g AlPO4 without **antigen**. The mice were challenged with 5 multiply 105 colony forming units (CFU) of live *M. catarrhalis* strain ATCC 43617 bacteria. The log10 weighted mean number of CFU/lung and the standard deviation 4 hours after challenge was calculated for each group. Sham **immunized** mice had 5.41 (+/-0.2) log10 CFU/lungs 4

hours after challenge. The kwc preparation induced significant lung clearance as compared to the control group (1.58 log difference). BASB119 vaccine induced a 1.34 log difference in lung clearance, which was significantly different from the control.

USE - The composition comprising the novel polypeptide or polynucleotide is useful for preparing a medicament for generating an immune response in an animal. The therapeutic composition is useful in treating humans with *M. catarrhalis* infection. (All claimed). The polypeptides may also be used as prophylactic agents of bacterial infections, particularly *M. catarrhalis* infections in mammals, especially humans. The polynucleotides are useful in therapy or prophylaxis, particularly genetic immunization against these infections or diseases. These diseases include otitis media in infants or children, pneumonia in elderlies, sinusitis, nosocomial infections and invasive diseases, chronic otitis media with hearing loss, fluid accumulation in the middle ear, infection of the upper respiratory tract, or inflammation of the middle ear. The polypeptides or polynucleotides may also be employed as research reagents and materials for discovering treatments of and diagnostics for diseases, particularly human diseases. In particular, the polypeptides or polynucleotides are useful in the discovery and development of antibacterial compounds, or for diagnosing diseases, staging of the disease, determining the response of an infectious organism to drugs.

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L10 ANSWER 10 OF 24 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-159872 [16] WPIDS
 DOC. NO. NON-CPI: N2001-116482
 DOC. NO. CPI: C2001-047624
 TITLE: New BASB120 polypeptides and polynucleotides from *Moraxella catarrhalis* strain American Type Culture Collection 43617, for use as therapeutic agents or vaccines against bacterial infections, e.g. otitis media or pneumonia.
 DERWENT CLASS: B04 D16 S03
 INVENTOR(S): THONNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009335	A2	20010208	(200116)*	EN	75
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE					
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG					
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ					
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN					
YU ZA ZW					
AU 2000064397	A	20010219	(200129)		
EP 1206546	A2	20020522	(200241)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK					
NL PT RO SE SI					

10/018672

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009335	A2	WO 2000-EP7361	20000731
AU 2000064397	A	AU 2000-64397	20000731
EP 1206546	A2	EP 2000-951472	20000731
		WO 2000-EP7361	20000731

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000064397	A Based on	WO 2001009335
EP 1206546	A2 Based on	WO 2001009335

PRIORITY APPLN. INFO: GB 1999-18281 19990803

AN 2001-159872 [16] WPIDS

AB WO 200109335 A UPAB: 20010323

NOVELTY - An isolated polypeptide (PP) comprising:

(a) a sequence of 250 amino acids (I) from *Moraxella catarrhalis*, given in the specification; or

(b) an amino acid sequence, which has at least 85% identity to (I), over the entire length of (I), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an immunogenic fragment of the polypeptide, in which the immunogenic activity of the fragment is the same as (I);

(2) isolated polynucleotides, which encode the polypeptides, comprising:

(i) a nucleotide sequence encoding (PP);

(ii) a nucleotide sequence having 85% identity to the nucleotide sequence encoding (I) over the entire coding region;

(iii) a 753 base pair (bp) DNA sequence (II), given in the specification;

(iv) a nucleotide sequence having 85% identity to (II) over the entire length of (II);

(v) the complements of (i)-(iv); or

(vi) a nucleotide sequence encoding (I) obtainable by screening an appropriate library, under stringent conditions, with a labeled probe having (II) or its fragments;

(3) an expression vector or a recombinant live microorganism comprising (2);

(4) a host cell comprising the expression vector, or a subcellular fraction or membrane of the host cell expressing (PP);

(5) producing (PP) comprising culturing (4) to produce (PP) and recovering (PP) from the culture medium;

(6) expressing (2) comprising transforming a host cell with the expression vector and culturing the host cell for expression of any of the polynucleotides;

(7) vaccine compositions comprising (PP) or (2), and a pharmaceutical carrier;

(8) an antibody immunospecific for (PP) or immunological fragment of (1);

(9) diagnosing a *M. catarrhalis* infection comprising identifying (PP) or the antibody of (8) present within a biological

Searcher : Shears 571-272-2528

sample from an animal suspected of having such an infection;

(10) using the compositions of (7) for preparing a medicament for use in generating an immune response in an animal; and

(11) a therapeutic composition comprising the antibody of (8).

ACTIVITY - Antibacterial; antiinflammatory; pulmonary.

MECHANISM OF ACTION - Vaccine; gene therapy. Clinical test details are described but no results are given.

USE - A composition comprising an immunologic amount of (PP) or a polynucleotide encoding it, is useful for preparing a medicament for generating an immune response in an animal. The therapeutic composition is useful in treating humans with M. catarrhalis infection (all claimed). The polypeptides may also be used as prophylactic agents of bacterial infections, particularly M. catarrhalis infections in mammals, especially humans. The polynucleotides are useful in therapy or prophylaxis, particularly genetic immunization against these infections or diseases. These diseases include otitis media in infants or children, pneumonia in elderlies, sinusitis, nosocomial infections and invasive diseases, chronic otitis media with hearing loss, fluid accumulation in the middle ear, infection of the upper respiratory tract, or inflammation of the middle ear. The polypeptides or polynucleotides may also be employed as research reagents and materials for discovering treatments of and diagnostics for diseases, particularly human diseases. In particular, the polypeptides or polynucleotides are useful in the discovery and development of antibacterial compounds, or for diagnosing diseases, staging diseases, and determining the response of an infectious organism to drugs.

Dwg.0/2

L10 ANSWER 11 OF 24 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-159871 [16] WPIDS
 DOC. NO. NON-CPI: N2001-116481
 DOC. NO. CPI: C2001-047623
 TITLE: New BASB118 polypeptides and polynucleotides from Moraxella catarrhalis strain American Type Culture Collection 43617, for use as therapeutic agents or vaccines against bacterial infections, e.g. otitis media or pneumonia.
 DERWENT CLASS: B04 D16 S03
 INVENTOR(S): THONNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS; (SMIK) SMITHKLINE BEECHAM BIOLOGICALS SA
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009334	A1	20010208	(200116)*	EN	77
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE					
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG					
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ					
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN					
YU ZA ZW					

10/018672

AU 2000068330 A 20010219 (200129)
EP 1206548 A1 20020522 (200241) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK
NL PT RO SE SI
JP 2003506044 W 20030218 (200315) 77
CN 1391610 A 20030115 (200330)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009334	A1	WO 2000-EP7360	20000731
AU 2000068330	A	AU 2000-68330	20000731
EP 1206548	A1	EP 2000-956353	20000731
		WO 2000-EP7360	20000731
JP 2003506044	W	WO 2000-EP7360	20000731
		JP 2001-514126	20000731
CN 1391610	A	CN 2000-813834	20000731

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000068330	A Based on	WO 2001009334
EP 1206548	A1 Based on	WO 2001009334
JP 2003506044	W Based on	WO 2001009334

PRIORITY APPLN. INFO: GB 1999-18208 19990803

AN 2001-159871 [16] WPIDS

AB WO 200109334 A UPAB: 20010323

NOVELTY - An isolated polypeptide comprising:

(a) a sequence of 386 amino acids (I) from *Moraxella* catarrhalis, given in the specification; or

(b) an amino acid sequence, which has 85% identity to (I), over the entire length of (I), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an immunogenic fragment of the new polypeptide, in which the immunogenic activity of the fragment is the same as (I);

(2) isolated polynucleotides, which encode the new polypeptide, comprising:

(i) a nucleotide sequence encoding (a) or (b);

(ii) a nucleotide sequence that has 85% identity to the nucleotide sequence encoding (I) over the entire coding region;

(iii) a 1161 base pair (bp) DNA sequence (II), given in the specification;

(iv) a nucleotide sequence that has 85% identity to (II) over the entire length of (II);

(v) the complements of (i)-(iv); or

(vi) a nucleotide sequence encoding (I) obtainable by screening an appropriate library, under stringent conditions, with a labeled probe having (II) or its fragments;

(3) an expression vector or a recombinant live microorganism comprising an isolated polynucleotide of (2);

(4) a host cell comprising the expression vector of (3), or a subcellular fraction or membrane of the host cell expressing the new

Searcher : Shears 571-272-2528

polypeptide;

(5) producing the new polypeptide comprising culturing (4) to produce the new polypeptide and recovering it from the culture medium;

(6) expressing a polynucleotide of (2) comprising transforming a host cell with the expression vector of (3) and culturing the host cell for expression of any of the polynucleotides;

(7) **vaccine** compositions comprising the new polypeptide or polynucleotide of (2), and a pharmaceutical carrier;

(8) an antibody immunospecific for the new polypeptide or immunological fragment;

(9) diagnosing a *M. catarrhalis* infection comprising identifying the new polypeptide or the antibody of (8) present within a biological sample from an animal suspected of having such an infection; and

(10) a therapeutic composition comprising an antibody of (8).

ACTIVITY - Antibacterial; antiinflammatory; pulmonary.

MECHANISM OF ACTION - **Vaccine**; gene therapy. Groups of mice were **immunized** either with the polypeptide (BASB118) adsorbed onto AlPO₄ (10 micro g BASB118 onto 100 micro g of AlPO₄), with a killed whole cell (kwc) preparation of *M. catarrhalis* strain American type Culture Collection (ATCC) 43617 adsorbed onto AlPO₄, or with 100 micro g AlPO₄ without **antigen**. The mice were challenged with 5 multiply 10⁵ colony forming units (CFU) of live *M. catarrhalis* strain ATCC 43617 bacteria. The log₁₀ weighted mean number of CFU/lung and the standard deviation 4 hours after challenge was calculated for each group. Sham **immunized** mice had 5.66 (+/-0.18) log₁₀ CFU/lungs 4 hours after challenge. The kwc preparation induced significant lung clearance as compared to the control group (1.3 log difference). BASB118 **vaccine** induced a 0.43 log difference in lung clearance, which was significantly different from the control.

USE - A composition comprising an immunologic amount of the new polypeptide or polynucleotide encoding it, is useful for preparing a medicament for generating an immune response in an animal. The therapeutic composition is useful in treating humans with *M. catarrhalis* infection (all claimed). The polypeptide may also be used as a prophylactic agent of bacterial infections, particularly *M. catarrhalis* infections in mammals, especially humans. The polynucleotides are useful in therapy or prophylaxis, particularly genetic **immunization** against these infections or diseases. These diseases include otitis media in infants or children, pneumonia in elderlies, sinusitis, nosocomial infections and invasive diseases, chronic otitis media with hearing loss, fluid accumulation in the middle ear, infection of the upper respiratory tract, or inflammation of the middle ear. The polypeptides or polynucleotides may also be employed as research reagents and materials for discovering treatments of and diagnostics for diseases, particularly human diseases. In particular, the new polypeptide or polynucleotides are useful in the discovery and development of antibacterial compounds, or for diagnosing diseases, staging diseases, and determining the response of an infectious organism to drugs.

Dwg.0/1

L10 ANSWER 12 OF 24 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-159870 [16] WPIDS
 DOC. NO. NON-CPI: N2001-116480
 DOC. NO. CPI: C2001-047622
 TITLE: New BASB123 polypeptides and polynucleotides from
 Moraxella catarrhalis strain American type Culture
 Collection 43617, for use as therapeutic agents or
vaccines against bacterial infections, e.g.
 otitis media or pneumonia.
 DERWENT CLASS: B04 D16 S03
 INVENTOR(S): THONNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009333	A2	20010208	(200116)*	EN	79
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000069880	A	20010219	(200129)		
EP 1216301	A2	20020626	(200249)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009333	A2	WO 2000-EP7296	20000727
AU 2000069880	A	AU 2000-69880	20000727
EP 1216301	A2	EP 2000-958311	20000727
		WO 2000-EP7296	20000727

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000069880	A Based on	WO 2001009333
EP 1216301	A2 Based on	WO 2001009333

PRIORITY APPLN. INFO: GB 1999-17975 19990730

AN 2001-159870 [16] WPIDS

AB WO 200109333 A UPAB: 20010323

NOVELTY - An isolated polypeptide comprising:

(a) a sequence comprising one of two 167 amino acid sequences
 (designated I and II) from Moraxella catarrhalis, given in the
 specification; or

(b) an amino acid sequence, which has 85% identity to (I) or
 (II), over the entire length of (I) or (II), respectively, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for

the following:

- (1) an immunogenic fragment of the new polypeptide, in which the immunogenic activity of the fragment is the same as (I) or (II);
- (2) isolated polynucleotides, which encode the new polypeptide, comprising:
 - (i) a nucleotide sequence encoding (a) or (b);
 - (ii) a nucleotide sequence that has 85% identity to the nucleotide sequence encoding (I) or (II) over the entire coding region;
 - (iii) a 504 base pair (bp) (III) or 501 bp (IV) DNA sequence, given in the specification;
 - (iv) a nucleotide sequence that has 85% identity to (III) or (IV) over the entire length of (III) or (IV), respectively;
 - (v) the complements of (i)-(iv); or
 - (vi) a nucleotide sequence encoding (I) or (II) obtainable by screening an appropriate library, under stringent conditions, with a labeled probe having (III), (IV), or fragments of (III) or (IV);
- (3) an expression vector or a recombinant live microorganism comprising a polynucleotide of (2);
- (4) a host cell comprising the expression vector of (3), or a subcellular fraction or membrane of the host cell expressing the new polypeptide;
- (5) producing the new polypeptide comprising culturing (4) to produce the polypeptide and recovering it from the culture medium;
- (6) expressing a polynucleotide of (2) comprising transforming a host cell with the expression vector of (3) and culturing the host cell for expression of any of the polynucleotides;
- (7) **vaccine** compositions comprising the new polypeptide or polynucleotide of (2), and a pharmaceutical carrier;
- (8) an antibody immunospecific for the new polypeptide or an immunological fragment;
- (9) diagnosing a *M. catarrhalis* infection comprising identifying the new polypeptide or the antibody of (8) present within a biological sample from an animal suspected of having such an infection; and
- (10) a therapeutic composition comprising an antibody of (8).

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - **Vaccine**; gene therapy. Clinical details are described but no results are given.

USE - A composition comprising an immunologic amount of the new polypeptide or polynucleotide encoding it, is useful for preparing a medicament for generating an immune response in an animal. The therapeutic composition is useful in treating humans with *M. catarrhalis* infection (all claimed). The polypeptides may also be used as prophylactic agents of bacterial infections, particularly *M. catarrhalis* infections in mammals, especially humans. The polynucleotides are useful in therapy or prophylaxis, particularly genetic **immunization** against these infections or diseases. These diseases include otitis media in infants or children, pneumonia in elderlies, sinusitis, nosocomial infections and invasive diseases, chronic otitis media with hearing loss, fluid accumulation in the middle ear, infection of the upper respiratory tract, or inflammation of the middle ear. The polypeptide or polynucleotides may also be employed as research reagents and materials for discovering treatments of and diagnostics for diseases, particularly human diseases. In particular, the

10/018672

polypeptide or polynucleotides are useful in the discovery and development of antibacterial compounds, or for diagnosing diseases, staging of diseases, and determining the response of an infectious organism to drugs.

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L10 ANSWER 13 OF 24 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-159869 [16] WPIDS
 DOC. NO. NON-CPI: N2001-116479
 DOC. NO. CPI: C2001-047621
 TITLE: New BASB115 polypeptide from Moraxella catarrhalis strain MC2931 (ATCC 43617), useful as a therapeutic agent or vaccine against bacterial (especially M. catarrhalis) infections, e.g. otitis media or pneumonia.
 DERWENT CLASS: B04 D16 S03
 INVENTOR(S): THONNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009332	A2	20010208	(200116)*	EN	72
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE					
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG					
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ					
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN					
YU ZA ZW					
AU 2000068323	A	20010219	(200129)		
EP 1204752	A2	20020515	(200239)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK					
NL PT RO SE SI					
JP 2003506043	W	20030218	(200315)		75
CN 1378597	A	20021106	(200316)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009332	A2	WO 2000-EP7294	20000727
AU 2000068323	A	AU 2000-68323	20000727
EP 1204752	A2	EP 2000-956339	20000727
		WO 2000-EP7294	20000727
JP 2003506043	W	WO 2000-EP7294	20000727
		JP 2001-514124	20000727
CN 1378597	A	CN 2000-811104	20000727

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000068323	A Based on	WO 2001009332
EP 1204752	A2 Based on	WO 2001009332

Searcher : Shears 571-272-2528

JP 2003506043 W Based on

WO 2001009332

PRIORITY APPLN. INFO: GB 1999-18003

19990730

AN 2001-159869 [16] WPIDS

AB WO 200109332 A UPAB: 20010323

NOVELTY - A *Moraxella catarrhalis* strain MC2931 (ATCC 43617) BASB115 polypeptide of 199 amino acids (I) as defined in the specification, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an isolated polypeptide (P1) comprising an amino acid sequence which has at least 85%, preferably 100%, identity to (I) over its entire length;
- (2) an immunogenic fragment (P2) of the polypeptide, in which the immunogenic activity of the fragment is substantially the same as (I);
- (3) an isolated polynucleotide (N1) selected from:
 - (a) a nucleotide sequence encoding (I), P1 or P2;
 - (b) an isolated polynucleotide comprising a nucleotide sequence encoding a polypeptide that has at least 85%, preferably 95%, identity to (I) over its entire length, or a nucleotide sequence complementary to the isolated polynucleotide;
 - (c) an isolated polynucleotide comprising a nucleotide sequence that has at least 85%, preferably 95%, identity to a nucleotide sequence encoding (I) over the entire coding region, or a nucleotide sequence complementary to the isolated polynucleotide;
 - (d) an isolated polynucleotide comprising the 600 basepair (bp) sequence (II) fully defined in the specification;
 - (e) an isolated polynucleotide comprising a nucleotide sequence which has at least 85%, preferably 95%, identity to (I) over its entire length, or a nucleotide sequence complementary to the isolated polynucleotide;
 - (f) a nucleotide sequence encoding (I) obtainable by screening an appropriate library, under stringent conditions, with a labeled probe having the sequence of (II) or its fragments;
- (4) an expression vector or a recombinant live microorganism comprising N1;
- (5) a host cell comprising the expression vector of (4), or a subcellular fraction or membrane of the host cell expressing P1;
- (6) a process for producing (I), P1 or P2 by culturing the host cell of (5);
- (7) a process for expressing N1 comprising transforming a host cell with the expression vector of (4) and culturing the host cell;
- (8) a vaccine compositions comprising (I), P1 or P2 or N1;
- (9) an antibody immunospecific for (I), P1 or P2;
- (10) a method for diagnosing a *M. catarrhalis* infection comprising identifying (I), P1 or P2 or the antibody of (9) present within a biological sample from an animal suspected of having such an infection; and
- (11) a therapeutic composition for treating humans with *M. catarrhalis* disease, comprising at least one antibody against (I), P1 or P2.

ACTIVITY - Antibacterial; ophthalmological; antiinflammatory.

MECHANISM OF ACTION - Vaccine; gene therapy.

Groups of mice were immunized either with the

polypeptide (BASB115) adsorbed onto ALPO4 (10 mu g BASB115 onto 100 mu g of ALPO4), with a killed whole cells (kwc) preparation of **M. catarrhalis** strain ATCC 43617 adsorbed onto ALPO4, or with 100 mu g ALPO4 without **antigen**. The mice were challenged with 5 x 10⁵ colony forming units (CFU) of live **M. catarrhalis** strain ATCC 43617 bacteria. The log₁₀ weighted mean number of CFU/lung and the standard deviation 4 hours after challenge was calculated for each group. Sham **immunized** mice had 5.66 (+/-0.18) log₁₀ CFU/lungs 4 hours after challenge. The kwc preparation induced significant lung clearance as compared to the control group (1.76 log difference). BASB115 **vaccine** induced a 0.46 log difference in lung clearance, which was significantly different from the control.

USE - The composition comprising an immunologic amount of the polypeptide or polynucleotide is useful for preparing a medicament for generating an immune response in an animal. The therapeutic composition is useful in treating humans with **M. catarrhalis** infection (all claimed). The polypeptides may also be used as prophylactic agents of bacterial infections, particularly **M. catarrhalis** infections in mammals, especially humans. The polynucleotides are useful in therapy or prophylaxis, particularly genetic **immunization** against these infections or diseases. These diseases include otitis media in infants or children, pneumonia in elderlies, sinusitis, nosocomial infections and invasive diseases, chronic otitis media with hearing loss, fluid accumulation in the middle ear, infection of the upper respiratory tract, or inflammation of the middle ear. The polypeptides or polynucleotides may also be employed as research reagents and materials for discovering treatments of and diagnostics for diseases, particularly human diseases. In particular, the polypeptides or polynucleotides are useful in the discovery and development of antibacterial compounds, or for diagnosing diseases, staging of the disease, determining the response of an infectious organism to drugs.

Dwg.0/1

L10 ANSWER 14 OF 24 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-168707 [17] WPIDS
 DOC. NO. NON-CPI: N2001-121639
 DOC. NO. CPI: C2001-050432
 TITLE: New BASB125 polypeptide isolated from Moraxella catarrhalis for treating, preventing and diagnosing diseases associated with **M. catarrhalis** infection in mammals, e.g. otitis media in humans.
 DERWENT CLASS: B04 D16 S03
 INVENTOR(S): THONNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009331	A2	20010208	(200117)*	EN	73
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE					

10/018672

DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN
YU ZA ZW

AU 2000064393 A 20010219 (200129)

EP 1212424 A2 20020612 (200239) EN

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK
NL PT RO SE SI

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009331	A2	WO 2000-EP7291	20000727
AU 2000064393	A	AU 2000-64393	20000727
EP 1212424	A2	EP 2000-951466	20000727
		WO 2000-EP7291	20000727

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000064393	A Based on	WO 2001009331
EP 1212424	A2 Based on	WO 2001009331

PRIORITY APPLN. INFO: GB 1999-18041 19990730

AN 2001-168707 [17] WPIDS

AB WO 200109331 A UPAB: 20010328

NOVELTY - An isolated polypeptide having at least 85 % identity to a sequence (I) of 134 amino acids for a *Moraxella catarrhalis* BASB125 polypeptide, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an isolated polypeptide of sequence (I);
- (2) immunogenic fragments of the polypeptide having the same immunogenic activity as sequence (I);
- (3) an isolated polynucleotide:
 - (i) having 85 % identity to a polynucleotide encoding the polypeptide, especially 85 % identity to sequence (II) of 405 base pairs (bp) encoding sequence (I);
 - (ii) complementary to a polynucleotide of (i);
 - (iii) encoding the new polypeptide; and
 - (iv) encoding sequence (I) and obtained by screening a library under stringent conditions using sequence (II) or a fragment as a probe;
- (4) vectors or recombinant live microorganisms comprising the polynucleotide;
- (5) host cells comprising the vector and subcellular fragments/membranes of the host cells expressing the polypeptide;
- (6) producing the new polypeptide comprising culturing the host cell of (5) to produce the polypeptide and recovering the polypeptide from the culture medium;
- (7) expressing (3) comprising transforming a host cell with an expression vector of (4) and culturing the host cell to express the polynucleotide;
- (8) **vaccine** compositions comprising the new

Searcher : Shears 571-272-2528

polypeptide or (3);

(9) antibodies specific for the new polypeptide, or immunological fragments of (2);

(10) diagnosing a *M. catarrhalis* infection comprising identifying the new polypeptide or an antibody immunospecific for the polypeptide, present within a biological sample from an animal suspected of having the infection;

(11) preparing a medicament for generating an immune response in an animal using a composition comprising the new polypeptide or (3); and

(12) a therapeutic composition for treating humans with *M. catarrhalis* disease comprising an antibody against the new polypeptide.

ACTIVITY - Antibacterial. A sequence (II) of 405 base pairs (bp) was isolated from *M. catarrhalis* strain American Type Culture Collection (ATCC) 43617 by standard molecular biological techniques a sequence (I) of 134 amino acids deduced. Mice were immunized with a BASB125 vaccine or a killed whole cell (kwc) *M. catarrhalis* preparation, or were sham immunized. After a booster, mice were challenged by instillation of bacterial suspension into the nostril under anaesthesia. Mice were killed 30 minutes-24 hours after challenge and lungs removed aseptically and homogenized. Homogenates were diluted and plated onto agar plates, and log₁₀ weighted mean number of colony forming units/lung determined by counting. BASB125 vaccine and kwc preparations induced significant lung clearance of *M. catarrhalis* versus controls. No experimental data is given.

MECHANISM OF ACTION - Vaccine; gene therapy.

USE - The polypeptide, immunogenic fragments of the polypeptide, fusion proteins of the polypeptide, or polynucleotides encoding the polypeptide are used in vaccine compositions (claimed), optionally with another *M. catarrhalis* antigen (claimed). They can also be included in medicaments for use in generating an immune response in an animal (claimed). The vaccines and medicaments are useful in preventing and/or treating microbial diseases, especially diseases associated with *M. catarrhalis* infection in mammals (especially humans). The polypeptides/polynucleotides may be used to produce antibodies, which can be used in compositions useful therapeutically to treat humans with *M. catarrhalis* diseases (claimed).

M. catarrhalis is a Gram-negative bacteria frequently isolated from the human upper respiratory tract and responsible for several pathologies in humans e.g. otitis media in children, pneumonia, sinusitis etc. The polypeptides, polynucleotides and antibodies are also useful diagnostically e.g. in the detection of the polypeptides/antibodies in a biological sample from an animal to diagnose *M. catarrhalis* infection (claimed). The diagnostic assays are useful e.g. to detect diseases, determine the stage and type of infection, determine the effect of drugs etc. The polypeptides and polynucleotides can also be used to detect antagonists and agonists useful e.g. in preventing, inhibiting and/or treating disease. The polynucleotides are also useful in producing hybridization probes to isolate sequences encoding BASB125 and similar sequences.

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Dwg.0/0

L10 ANSWER 15 OF 24 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2001-159868 [16] WPIDS
DOC. NO. NON-CPI: N2001-116478
DOC. NO. CPI: C2001-047620
TITLE: New polypeptides and polynucleotides of Moraxella
catarrhalis, useful as vaccine for
prevention, treatment of microbial diseases and in
diagnostic assays for detecting diseases associated
with microbial infections.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009330	A2	20010208	(200116)*	EN	81
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000064392	A	20010219	(200129)		
EP 1208206	A2	20020529	(200243)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009330	A2	WO 2000-EP7281	20000727
AU 2000064392	A	AU 2000-64392	20000727
EP 1208206	A2	EP 2000-951465	20000727
		WO 2000-EP7281	20000727

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000064392	A Based on	WO 2001009330
EP 1208206	A2 Based on	WO 2001009330

PRIORITY APPLN. INFO: GB 1999-18040 19990730
AN 2001-159868 [16] WPIDS
AB WO 200109330 A UPAB: 20010323
NOVELTY - An isolated polypeptide (I) of Moraxella catarrhalis,
designated as BASB121, comprising a sequence (85% identical to a
sequence) of 204 amino acids fully defined in the specification, is
new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for

Searcher : Shears 571-272-2528

the following:

- (1) an immunogenic fragment of (I);
- (2) an isolated polynucleotide (II) encoding (I) comprising a sequence of 615 or 612 base pairs (bp) fully defined in the specification or an isolated polynucleotide (or its complement) comprising a nucleotide sequence 85% identical to (II);
- (3) an expression vector (III) or a recombinant live microorganism comprising (II);
- (4) a host cell comprising (III) or a subcellular fraction of the membrane of the host cell expressing (I);
- (5) preparation of (I);
- (6) expressing (II) by transforming a host cell with (III) comprising the polynucleotide and culturing the host cell;
- (7) a **vaccine** composition (IV) comprising (I) or (II); and
- (8) an antibody (V) immunospecific for (I) or its immunological fragment.

ACTIVITY - Cytostatic; immunosuppressive; antibacterial; auditory; antiinflammatory.

MECHANISM OF ACTION - Vaccine.

Groups of mice were immunized with BASB121 **vaccine**. After the booster, the mice were challenged by instillation of bacterial suspension into the nostril under anesthesia. Mice were killed between 30 minutes and 24 hours after challenge and the lungs were removed aseptically and homogenized individually. The log10 weighted mean number of colony forming unit (CFU)/lung was determined by counting the colonies grown on agar plates after plating of dilutions of the homogenate. Results were analyzed statistically. The results showed that BASB121 **vaccine** induced significant lung clearance as compared to the control group.

USE - (I) and antibodies against the polypeptides are useful for diagnosing *Moraxella catarrhalis* infection, in a biological sample from an animal suspected of having such infection. (I) and (II) are useful for preparing a medicament for use in generating an immune response in an animal. (IV) is useful for treating *Moraxella catarrhalis* disease in humans (claimed). (I) is useful for prevention and treatment of microbial diseases associated with microbial infections and conditions associated with such infections. Diseases caused by or related to infection by a bacteria, includes otitis media in infants and children, pneumonia in elderly people, sinusitis, nosocomial infections and invasive diseases, chronic otitis media with hearing loss, fluid accumulation in the middle ear, auditive nerve damage, delayed speech learning, infection of the upper respiratory tract and inflammation of the middle ear. Antibodies against BASB121-polypeptide or BASB121-polynucleotide are useful for treating infections, particularly bacterial infections caused by *Moraxella catarrhalis*. BASB121 polypeptides and polynucleotides are used to assess the binding of small molecule substrates and ligands, to screen compounds to identify those which enhance (agonist) or block (antagonist) the action of BASB121 polypeptides.

Dwg.0/6

10/018672

DOC. NO. NON-CPI: N2001-130566
DOC. NO. CPI: C2001-054636
TITLE: New BASB126 polypeptides of Moraxella catarrhalis
useful for diagnostic, prophylactic and therapeutic
purposes against microbial diseases, preferably
bacterial infections.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009329	A1	20010208	(200118)*	EN	86
RW:	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC				
	MW MZ NL OA PT SD SE SL SZ TZ UG ZW				
W:	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE				
	DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG				
	KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ				
	PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN				
	YU ZA ZW				
AU 2000068316	A	20010219	(200129)		
EP 1204750	A1	20020515	(200239)	EN	
R:	AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK				
	NL RO SI				

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009329	A1	WO 2000-EP7280	20000727
AU 2000068316	A	AU 2000-68316	20000727
EP 1204750	A1	EP 2000-956332	20000727
		WO 2000-EP7280	20000727

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000068316	A Based on	WO 2001009329
EP 1204750	A1 Based on	WO 2001009329

PRIORITY APPLN. INFO: GB 1999-18038 19990730

AN 2001-182955 [18] WPIDS

AB WO 200109329 A UPAB: 20010402

NOVELTY - An isolated BASB126 polypeptide (I) of Moraxella catarrhalis, comprises a sequence having at least 85% identity (over the entire length) to one of the two 192 amino acids sequences given in the specification.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an immunogenic fragment (II) of (I), where (II) has the same immunogenicity of (I);

(2) an isolated polynucleotide (III) encoding (I) (II);

(3) an expression vector (IV) or a recombinant live

Searcher : Shears 571-272-2528

microorganism, comprising (III);

(4) a host cell (V) comprising (IV), or a subcellular fraction or membrane of (V) expressing (I);

(5) producing (I) comprising culturing (V) and recovering the polypeptide from the culture medium;

(6) expressing (III) comprising transforming (V) with (IV) and culturing under conditions sufficient for its expression;

(7) a **vaccine** (VI) comprising (I), (II) or (III);

(8) an antibody (VII) immunospecific for (I) or (II);

(9) diagnosing *Moraxella catarrhalis* infection comprising identifying (I) or (VII) in a biological sample from an animal suspected of having such an infection; and

(10) a therapeutic composition (VIII) for treating *Moraxella catarrhalis* infection comprising at least one (VII).

ACTIVITY - Antibacterial; antimicrobial; auditory; antiinflammatory.

MECHANISM OF ACTION - Vaccine.

Experimental protocols are described but no results are given.

USE - (VI) is useful for preparing a medicament for use in generating immune response in an animal (claimed). (VIII) is useful for treating humans with *Moraxella catarrhalis* disease (claimed).

(I) and (III) are useful in the prevention, treatment and diagnosis of microbial diseases, preferably bacterial infections such as otitis media, pneumonia, sinusitis, nosocomial infections, and invasive diseases. (I) and (III) are useful as immunogens to produce antibodies, and to assess the binding of small molecule substrate and ligands in, for e.g., cells, cell-free preparations, chemical libraries and natural product mixtures. (I), (III) and (VII) are useful to configured screening methods for detecting the effect of added compounds and production of mRNA and/or polypeptides in the cells.

(III) is useful as a hybridization probe for RNA, cDNA and genomic DNA to isolate full-length cDNAs and genomic clones encoding BASB126 and to isolate cDNA and genomic clones of other genes that have a high identity particularly high sequence identity, to the BASB126 gene. (II) has utility in diagnosis of the stage and type of infection, and also for therapeutic or prophylactic purposes, in particular genetic immunization. (II) is useful as a component of polynucleotide arrays, preferably high density arrays or grid.

Dwg.0/4

L10 ANSWER 17 OF 24	WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER:	2001-159854 [16] WPIDS
DOC. NO. CPI:	C2001-047606
TITLE:	New BASB114 polypeptides and polynucleotides from <i>Moraxella catarrhalis</i> strain ATCC 43617, useful as therapeutic agents or vaccines against bacterial infections e.g. otitis media or pneumonia.
DERWENT CLASS:	B04 D16
INVENTOR(S):	THONNARD, J
PATENT ASSIGNEE(S):	(SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT:	95
PATENT INFORMATION:	

10/018672

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009179	A1	20010208	(200116)*	EN	82
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000068322	A	20010219	(200129)		
EP 1204678	A1	20020515	(200239)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL RO SI					
CN 1367790	A	20020904	(200281)		
JP 2003506027	W	20030218	(200315)		81

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009179	A1	WO 2000-EP7293	20000727
AU 2000068322	A	AU 2000-68322	20000727
EP 1204678	A1	EP 2000-956338	20000727
		WO 2000-EP7293	20000727
CN 1367790	A	CN 2000-811120	20000727
JP 2003506027	W	WO 2000-EP7293	20000727
		JP 2001-513985	20000727

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000068322	A Based on	WO 2001009179
EP 1204678	A1 Based on	WO 2001009179
JP 2003506027	W Based on	WO 2001009179

PRIORITY APPLN. INFO: GB 1999-17977 19990730

AN 2001-159854 [16] WPIDS

AB WO 200109179 A UPAB: 20010323

NOVELTY - An isolated BASB114 Moraxella catarrhalis strain American Type Culture Collection Number 43617 polypeptide (I) comprising one of two fully defined sequences of 169 amino acids (S1/S2) as given in the specification or an amino acid sequence at least 85% identical to S1/S2, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an immunogenic fragment of (I) in which the immunogenic activity is substantially the same as (I);

(2) an isolated polynucleotide (II) comprising:

(a) a (sequence at least 85% identical to a) nucleotide sequence encoding (I);

(b) a (sequence at least 85% identical to a) fully defined nucleotide sequence of 510 (S3) or 507 (S4) base pairs (bp) as given in the specification;

(c) complements of (a) or (b); or

Searcher : Shears 571-272-2528

(d) a nucleotide sequence obtainable by screening an appropriate library under stringent conditions with a labeled probe containing (fragments of) S3 or S4;

(3) an expression vector or a recombinant live microorganism (III) comprising (II);

(4) a host cell (IV) comprising (III) or a subcellular fraction or membrane of (IV) expressing (I);

(5) producing (I) comprising culturing (IV) and recovering the produced polypeptide;

(6) expressing (II) comprising transforming a host cell with (III) and culturing the host cell;

(7) **vaccine** compositions comprising (I) or (II);

(8) an antibody (V) immunospecific for (I) or its immunological fragment; and

(9) diagnosing a *M. catarrhalis* infection comprising identifying (I) or (V) present within a biological sample from an animal suspected of having such an infection.

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - **Vaccine**; gene therapy.

Groups of mice were **immunized** either with the polypeptide (BASB114) adsorbed onto ALPO4 (undefined) (10 micro g BASB114 onto 100 micro g of ALPO4), with a killed whole cells (kwc) preparation of *M. catarrhalis* strain ATCC 43617 adsorbed onto ALPO4, or with 100 micro g ALPO4 without **antigen**. The mice were challenged with 5 multiply 10 to the power of 5 cell forming units (CFU) of live *M. catarrhalis* strain ATCC 43617 bacteria. The log 10 weighted mean number of CFU/lung and the standard deviation 4 hours after challenge were calculated for each group. Sham **immunized** mice had 5.4 (+/-0.2) log 10 CFU/lungs 4 hours after challenge. The kwc preparation induced significant lung clearance as compared to the control group (1.6 log difference). BASB114 **vaccine** induced a 1.45 log difference in lung clearance, which was significantly different from the control.

USE - The composition comprising an immunologic amount of (I) or (II) is useful for preparing a medicament for generating an immune response in an animal. The therapeutic composition is useful in treating humans with *M. catarrhalis* infection (claimed). (I) may also be used as prophylactic agents of bacterial infections, particularly *M. catarrhalis* infections in mammals, especially humans. (II) are useful in therapy or prophylaxis, particularly genetic **immunization** against these infections or diseases. These diseases include otitis media in infants or children, pneumonia in elderly patients, sinusitis, nosocomial infections and invasive diseases, chronic otitis media with hearing loss, fluid accumulation in the middle ear, infection of the upper respiratory tract, or inflammation of the middle ear. (I) or (II) may also be employed as research reagents and materials for discovering treatments of and diagnostics for human diseases. In particular, (I) or (II) are useful in the discovery and development of antibacterial compounds, or for diagnosing diseases, staging of the disease, determining the response of an infectious organism to drugs.

Dwg.0/4

10/018672

DOC. NO. CPI: C2001-054617
TITLE: Novel BASB127 polypeptides of Moraxella
catarrhalis, useful for diagnostic, prophylactic
and therapeutic purposes against microbial
diseases, preferably bacterial infections.
DERWENT CLASS: B04 D16
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009172	A2	20010208	(200118)*	EN	74
RW:	AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC				
	MW MZ NL OA PT SD SE SL SZ TZ UG ZW				
W:	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE				
	DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG				
	KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ				
	PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN				
	YU ZA ZW				
AU 2000068321	A	20010219	(200129)		
EP 1204751	A2	20020515	(200239)	EN	
R:	AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK				
	NL PT RO SE SI				

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009172	A2	WO 2000-EP7292	20000727
AU 2000068321	A	AU 2000-68321	20000727
EP 1204751	A2	EP 2000-956337	20000727
		WO 2000-EP7292	20000727

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000068321	A Based on	WO 2001009172
EP 1204751	A2 Based on	WO 2001009172

PRIORITY APPLN. INFO: GB 1999-18033 19990730

AN 2001-182936 [18] WPIDS

AB WO 200109172 A UPAB: 20010402

NOVELTY - An isolated BASB127 polypeptide (I) of Moraxella catarrhalis, comprising at least 85% identity to a 306 residue amino acid sequence (S1), fully defined in the specification, over its entire length, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an isolated polypeptide (Ia) comprising S1;
- (2) an immunogenic fragment (Ib) of S1 with the same immunogenic activity of (Ia);
- (3) an isolated polynucleotide (II) encoding, or comprising a sequence encoding (I), (Ia) or (Ib);

Searcher : Shears 571-272-2528

- (4) an isolated polynucleotide (IIa) comprising a sequence encoding (I), or its complement;
- (5) an isolated polynucleotide (IIb) comprising at least 85 % identity to (II) or its complement;
- (6) an isolated polynucleotide (IIc) comprising at least 85 % identity to a 921 nucleotide sequence (S2), fully defined in the specification, or its complement;
- (7) an isolated polynucleotide (IId) comprising S2;
- (8) an isolated polynucleotide comprising (IIe) encoding S1, obtainable by screening an appropriate library under stringent hybridization conditions with labeled probe comprising S2;
- (9) an expression vector (III) or a recombinant live microorganism, comprising (II)-(IIe);
- (10) a host cell (IV) comprising (III), or a subcellular fraction or membrane of (IV) expressing (I);
- (11) producing (I)-(Ib), comprising culturing (IV) under expression conditions, and recovering the polypeptide from the medium;
- (12) expressing (II)-(IIe) by transforming (IV) with (III) and culturing transformed (IV) under expression conditions;
- (13) a vaccine composition (V) comprising (I)-(Ib), or (II)-(IIe);
- (14) an antibody (Ab) immunospecific for (I), (Ia) or (Ib);
- (15) diagnosing *Moraxella catarrhalis* infection, by identifying (I)-(Ib) or Ab present within a biological sample from an animal suspected of having such an infection; and
- (16) a therapeutic composition (T) comprising (Ab).

ACTIVITY - Antibacterial; auditory; antiinflammatory.

MECHANISM OF ACTION - Vaccine.

No biological data is given.

USE - (V) is useful for preparing a medicament for use in generating an immune response in an animal (claimed). (T) is useful for treating humans with *Moraxella catarrhalis* disease (claimed). (I) and (II) are useful in the prevention, treatment and diagnosis of microbial diseases, preferably bacterial infections such as otitis media, pneumonia, sinusitis, nosocomial infections, and invasive diseases. (I) and (II) are useful as immunogens to produce antibodies, and to assess the binding of small molecule substrates and ligands in e.g. cells, cell-free preparations, chemical libraries and natural product mixtures. (I), (II) and Ab are useful for screening methods to detect the effect of added compounds and production of mRNA and/or polypeptides in the cells. (I), (II) and their agonist and antagonist interfere with the initial physical interaction between a pathogen or pathogens and a eukaryotic, preferably mammalian, host responsible for sequelae of infection. (II) useful as a hybridization probe for RNA, cDNA and genomic DNA to isolate full-length cDNAs and genomic clones encoding BASB127 and to isolate cDNA and genomic clones of other genes that have a high identity particularly high sequence identity, to the BASB127 gene. (II) has utility in diagnosis of the stage and type of infection, and also for therapeutic or prophylactic purposes, in particular genetic immunization. (II) is useful as a component of polynucleotide arrays, preferably high density arrays or grid.

Dwg.0/2

10/018672

ACCESSION NUMBER: 2001-112459 [12] WPIDS
DOC. NO. NON-CPI: N2001-082527
DOC. NO. CPI: C2001-033488
TITLE: Novel BASB110 polypeptides of Moraxella
catarrhalis, useful as a vaccine for
treating Moraxella catarrhalis infections.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001000838	A1	20010104	(200112)*	EN	88
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000059779	A	20010131	(200124)		
EP 1196589	A1	20020417	(200233)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001000838	A1	WO 2000-EP5854	20000623
AU 2000059779	A	AU 2000-59779	20000623
EP 1196589	A1	EP 2000-945812	20000623
		WO 2000-EP5854	20000623

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000059779	A Based on	WO 2001000838
EP 1196589	A1 Based on	WO 2001000838

PRIORITY APPLN. INFO: GB 1999-15031 19990625

AN 2001-112459 [12] WPIDS

AB WO 200100838 A UPAB: 20010302

NOVELTY - Isolated BASB110 polypeptides (I) of Moraxella catarrhalis, are new. The BASB110 polypeptide has the 322 (P1) or another 322 (P2) amino acid sequence defined in the specification.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an isolated polypeptide (Ia) comprising an amino acid sequence which is at least 85%, preferably 95%, most preferably 100%, identical to the sequence, over its entire length, of P1 or P2;

(2) an immunogenic fragment (Ib) of (I) or (Ia), where the

Searcher : Shears 571-272-2528

- activity of the fragment is substantially the same as P1 or P2;
- (3) an isolated polynucleotide (II) encoding (I), (Ia) or (Ib);
 - (4) an isolated polynucleotide (IIa) comprising a sequence encoding (Ia) or its complementary sequence;
 - (5) an isolated polynucleotide (IIb) comprising a sequence having at least 85%, preferably 95%, most preferably 100% identity to a sequence encoding P1 or P2 over the entire coding region, or a nucleotide sequence complementary to the isolated polynucleotide;
 - (6) an isolated polynucleotide (IIc) comprising a sequence having at least 85%, preferably 95%, most preferably 100% identical to the 969 (N1) or 966 (N2) nucleotides fully defined in the specification, or its complement;
 - (7) an isolated polynucleotide (IId) comprising a sequence encoding P1 or P2, obtainable by screening an appropriate library under stringent hybridization conditions with labeled probe having the sequence of N1 or N2;
 - (8) an expression vector (III) of a recombinant live microorganism, comprising (II), (IIa), (IIb), (IIc) or (IId);
 - (9) a host cell (IV) comprising (III), or a subcellular fraction or membrane of (IV) expressing (Ia);
 - (10) a process for producing (I), (Ia) or (Ib) comprising culturing (IV);
 - (11) a process for expressing (II), (IIa), (IIb), (IIc) or (IId), comprising transforming (IV) with (III) and culturing transformed (IV) under conditions sufficient for its expression;
 - (12) a **vaccine** composition (V) comprising (I), (Ia) or (Ib), or (II), (IIa), (IIb), (IIc) or (IId);
 - (13) an antibody (Ab1) immunospecific for (I), (Ia) or (Ib);
- and
- (14) a method for diagnosing *Moraxella catarrhalis* infection, by identifying (I)-(Ib) or Ab1 present within a biological sample from an animal suspected of having such an infection.

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - **Vaccine**.

Groups of mice are immunized with BASB110 **vaccine**. After the booster, the mice were challenged by instillation of bacterial suspension into the nostril under anaesthesia. Mice were killed between 30 minutes and 24 hours after challenge and the lungs were removed aseptically and homogenized individually. The log 10 weighted mean number of colony forming units (CFU)/lung was determined by counting the colonies grown on agar plates after plating of dilutions of the homogenate. The arithmetic mean of the log 10 weighted mean number of CFU/lung and the standard deviations were calculated for each group. Results were not given in the specification.

USE - The **vaccine** is useful for preparing a medicament for use in generating immune response in an animal (claimed). Ab1 is useful for treating humans suffering from *Moraxella catarrhalis* disease (claimed).

Polynucleotides encoding the BASB110 polypeptides have utility in diagnosis of the stage and type of infection, and also for therapeutic or prophylactic purposes, in particular genetic immunization.

Dwg.0/3

10/018672

ACCESSION NUMBER: 2001-112458 [12] WPIDS
DOC. NO. NON-CPI: N2001-082526
DOC. NO. CPI: C2001-033487
TITLE: New BASB113 polypeptide isolated from Moraxella
catarrhalis bacterium, useful for diagnosing and
producing vaccines against bacterial
infections such as otitis media and pneumonia.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001000836	A1	20010104	(200112)*	EN	86
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000059778	A	20010131	(200124)		
EP 1196588	A1	20020417	(200233)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001000836	A1	WO 2000-EP5851	20000623
AU 2000059778	A	AU 2000-59778	20000623
EP 1196588	A1	EP 2000-945811	20000623
		WO 2000-EP5851	20000623

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000059778	A Based on	WO 2001000836
EP 1196588	A1 Based on	WO 2001000836

PRIORITY APPLN. INFO: GB 1999-15044 19990625

AN 2001-112458 [12] WPIDS

AB WO 200100836 A UPAB: 20010302

NOVELTY - An isolated polypeptide (I) comprising an amino acid sequence which has 85% identity to the Moraxella catarrhalis BASB113 polypeptide sequence of 224 (S2) or 224 (S4) amino acids respectively as given in the specification, or has a sequence of (S2) or (S4), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an immunogenic fragment (II) of (I) which has the same immunogenic activity as (I);

Searcher : Shears 571-272-2528

(2) an isolated polynucleotide (III), or its complementary nucleotide sequence comprising a nucleotide sequence:

(i) encoding a polypeptide that has 85% identity over the entire length of (S2) or (S4);

(ii) that has 85% identity over the entire length of the nucleotide sequence encoding region which encodes (S2) or (S4);

(iii) which has 85% identity over the entire length of a fully defined nucleotide sequence of 675 (S1) or 672 (S3) base pairs as given in the specification; and

(iv) comprising a nucleotide sequencing encoding (I) obtainable by screening an appropriate library under stringent hybridization conditions with a labeled probe with the sequence of (S1) or (S3);

(3) an expression vector (IV), or a recombinant live microorganism comprising (III);

(4) a host cell (V) comprising (IV), or a subcellular fraction or membrane of the host cell expressing (I);

(5) production of (I) comprising culturing (V) and recovering the produced polypeptide;

(6) expressing (III) involves transforming (V) with (IV) which contains any one of the polynucleotides given above and culturing (V) under suitable conditions to express the polynucleotides;

(7) a **vaccine** composition which comprises (I) or (II);

(8) a **vaccine** composition which comprises (III);

(9) an antibody (Ab) immunospecific for (I) or (II); and

(10) therapeutic compositions comprising an antibody directed against (I) useful in treating humans with *Moraxella catarrhalis*.

ACTIVITY - Anti-inflammatory; auditory; antibacterial.

MECHANISM OF ACTION - Gene therapy; **vaccine**. Details of test are given but no results are stated.

USE - (I), (II) and (III) are useful for preparing a medicament useful for generating an immune response in an animal. (I) is also useful as diagnostic reagent for *Moraxella catarrhalis* which involves identifying (I) or an antibody against (I) present within the biological sample from an animal suspected of having such an infection (claimed). The polynucleotides may be used as hybridization probes for RNA, cDNA and genomic DNA to isolate full-length cDNAs and genomic clones encoding BASB113 and to isolate cDNA and genomic clones of other genes that have high sequence identity to BASB113 gene. The polynucleotides and polypeptides are used as research reagents and materials for discovery of treatments of and diagnostics for human diseases. The polynucleotides derived from (S1) or (S3) is used as PCR (polymerase chain reaction) primers. The polynucleotide sequences can be used in the discovery and development of antibacterial compounds. The encoded protein can be used as target for the screening of antibacterial drugs. Additionally, the polynucleotide sequences encoding the amino terminal regions of the encoded protein or Shine-Dalgarno or other translation facilitating sequences of the respective mRNA can be used to construct antisense sequences to control the expression of the coding sequence of interest. The polypeptides and polynucleotides are used to block the initial physical interaction between a gram negative and/or gram positive bacteria to mammalian, host thus preventing the sequelae of infection. The polynucleotides encoding certain non-variable regions of bacterial cell surface protein are used in polynucleotide constructs which are useful for

10/018672

genetic immunization experiments in animal models of infection with Moraxella catarrhalis to identify protein groups able to provoke a prophylactic or therapeutic immune response. The vaccine comprising (I), (II) or (III) is useful for treating Moraxella catarrhalis infections such as sinusitis, nosocomial infections, otitis media and pneumonia. (II) is also used for therapeutic or prophylactic purposes especially genetic immunization.
Dwg.0/3

L10 ANSWER 21 OF 24 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2001-112457 [12] WPIDS
DOC. NO. NON-CPI: N2001-082525
DOC. NO. CPI: C2001-033486
TITLE: Novel BASB112 polypeptides of Moraxella catarrhalis, useful as a vaccine for treating Moraxella catarrhalis infections.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001000835	A1	20010104	(200112)*	EN	81
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000061519	A	20010131	(200124)		
EP 1196591	A1	20020417	(200233)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001000835	A1	WO 2000-EP5849	20000623
AU 2000061519	A	AU 2000-61519	20000623
EP 1196591	A1	EP 2000-947873	20000623
		WO 2000-EP5849	20000623

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000061519	A Based on	WO 2001000835
EP 1196591	A1 Based on	WO 2001000835

PRIORITY APPLN. INFO: GB 1999-14870 19990625
AN 2001-112457 [12] WPIDS

Searcher : Shears 571-272-2528

AB WO 200100835 A UPAB: 20010302

NOVELTY - Isolated BASB112 polypeptides (I) of *Moraxella catarrhalis*, are new. The BASB112 polypeptide has the 122 (P1) or another 122 (P2) amino acid sequence defined in the specification.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an isolated polypeptide (Ia) comprising an amino acid sequence which is at least 85%, preferably 95%, most preferably 100%, identical to the sequence, over its entire length, of P1 or P2;
 - (2) an immunogenic fragment (Ib) of (I) or (Ia), where the activity of the fragment is substantially the same as P1 or P2;
 - (3) an isolated polynucleotide (II) encoding (I), (Ia) or (Ib);
 - (4) an isolated polynucleotide (IIa) comprising a sequence encoding (Ia) or its complementary sequence
 - (5) an isolated polynucleotide (IIb) comprising a sequence having at least 85%, preferably 95%, most preferably 100% identity to a sequence encoding P1 or P2 over the entire coding region, or a nucleotide sequence complementary to the isolated polynucleotide;
 - (6) an isolated polynucleotide (IIc) comprising a sequence having at least 85%, preferably 95%, most preferably 100% identical to the 369 (N1) or 366 (N2) nucleotides fully defined in the specification, or its complement;
 - (7) an isolated polynucleotide (IIId) comprising a sequence encoding P1 or P2, obtainable by screening an appropriate library under stringent hybridization conditions with labeled probe having the sequence of N1 or N2;
 - (8) an expression vector (III) of a recombinant live microorganism, comprising (II), (IIa), (IIb), (IIc) or (IIId);
 - (9) a host cell (IV) comprising (III), or a subcellular fraction or membrane of (IV) expressing (Ia);
 - (10) a process for producing (I), (Ia) or (Ib) comprising culturing (IV)
 - (11) a process for expressing (II), (IIa), (IIb), (IIc) or (IIId), comprising transforming (IV) with (III) and culturing transformed (IV) under conditions sufficient for its expression;
 - (12) a **vaccine** composition (V) comprising (I), (Ia) or (Ib), or (II), (IIa), (IIb), (IIc) or (IIId);
 - (13) an antibody (Ab1) immunospecific for (I), (Ia) or (Ib);
- and
- (14) a method for diagnosing *Moraxella catarrhalis* infection, by identifying (I)-(Ib) or Ab1 present within a biological sample from an animal suspected of having such an infection.

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - **Vaccine**.

Groups of mice are immunized with BASB112 **vaccine**. After the booster, the mice were challenged by instillation of bacterial suspension into the nostril under anaesthesia. Mice were killed between 30 minutes and 24 hours after challenge and the lungs were removed aseptically and homogenized individually. The log 10 weighted mean number of colony forming units (CFU)/lung was determined by counting the colonies grown on agar plates after plating of dilutions of the homogenate. The arithmetic mean of the log 10 weighted mean number of CFU/lung and the standard deviations were calculated for each group. Results were not given in the specification.

10/018672

USE - The vaccine is useful for preparing a medicament for use in generating immune response in an animal (claimed). Abl is useful for treating humans suffering from Moraxella catarrhalis disease (claimed).

Polynucleotides encoding the BASB112 polypeptides have utility in diagnosis of the stage and type of infection, and also for therapeutic or prophylactic purposes, in particular genetic immunization.

Dwg.0/3

L10 ANSWER 22 OF 24 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2000-293015 [25] WPIDS
DOC. NO. CPI: C2000-088548
TITLE: New mutant cholera holotoxin having a point mutation at amino acid position 29 of the A subunit useful as an adjuvant in an antigenic composition to enhance the immune response in a vertebrate host to a selected antigen from a pathogen.
DERWENT CLASS: B04 C06 D16
INVENTOR(S): ELDRIDGE, J H; GREEN, B A; HANCOCK, G E; HOLMES, R K; JOBLING, M G; PEEK, J A
PATENT ASSIGNEE(S): (AMCY) AMERICAN CYANAMID CO; (USSH) US DEPT HEALTH & HUMAN SERVICES; (USGO) UNIV UNIFORMED SERVICES HEALTH SCI
COUNTRY COUNT: 86
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000018434	A1	20000406	(200025)*	EN	152
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW NL OA PT SD SE SL SZ TZ UG ZW					
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI					
GB GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS					
LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK					
SL TJ TM TR TT UA UG US UZ VN YU ZA ZW					
AU 9964039	A	20000417	(200035)		
BR 9914160	A	20010626	(200140)		
EP 1117435	A1	20010725	(200143)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK					
NL PT RO SE SI					
CN 1320043	A	20011031	(200215)		
KR 2001085859	A	20010907	(200218)		
JP 2002525093	W	20020813	(200267)		140
MX 2001003228	A1	20030601	(200417)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000018434	A1	WO 1999-US22520	19990930
AU 9964039	A	AU 1999-64039	19990930
BR 9914160	A	BR 1999-14160	19990930
		WO 1999-US22520	19990930
EP 1117435	A1	EP 1999-951639	19990930
		WO 1999-US22520	19990930

Searcher : Shears 571-272-2528

10/018672

CN 1320043	A	CN 1999-811557	19990930
KR 2001085859	A	KR 2001-703968	20010328
JP 2002525093	W	WO 1999-US22520	19990930
		JP 2000-571951	19990930
MX 2001003228	A1	WO 1999-US22520	19990930
		MX 2001-3228	20010328

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9964039	A Based on	WO 2000018434
BR 9914160	A Based on	WO 2000018434
EP 1117435	A1 Based on	WO 2000018434
JP 2002525093	W Based on	WO 2000018434
MX 2001003228	A1 Based on	WO 2000018434

PRIORITY APPLN. INFO: US 1998-102430P 19980930

AN 2000-293015 [25] WPIDS

AB WO 200018434 A UPAB: 20000524

NOVELTY - An antigenic composition which comprises a mutant cholera holotoxin featuring a point mutation at amino acid 29 of the A subunit where the glutamic acid residue is replaced by an amino acid other than aspartic acid.

DETAILED DESCRIPTION - The antigenic composition (AC) enhances the immune response in a vertebrate host to an antigen selected from a pathogenic bacterium, virus, fungus or parasite. The holotoxin has reduced toxicity compared to a wild-type cholera holotoxin.

INDEPENDENT CLAIMS are also included for the following:

(1) a plasmid containing an isolated and purified DNA sequence comprising a DNA sequence which encodes an immunogenic mutant cholera holotoxin having a substitution other than aspartic acid for the glutamic acid at position 29 of the A subunit of the cholera holotoxin and where the DNA sequence is operatively linked to an arabinose inducible promoter;

(2) a host cell transformed, transduced or transfected with the plasmid of claim (1); and

(3) producing an immunogenic mutant cholera holotoxin where the holotoxin has reduced toxicity compared to the wild type and has a substitution other than aspartic acid for the glutamic acid at position 29 of the A subunit of cholera holotoxin. The method comprises transforming, transducing or transfecting a host cell with the plasmid of claim (1) and culturing the host cell under conditions which permit the expression of the recombinant immunogenic detoxified protein by the host cell.

ACTIVITY - Immunostimulatory. 1 micro g of CT-CRM-E29H facilitated the greatest systemic and local humoral immune responses against rP4 protein. This example describes the immune responses of BALB/c mice immunized with recombinant (r) P4 and P6 Outer Membrane Proteins of Nontypable Haemophilus influenzae (NTHi). In a first experiment, five BALB/c mice per group were immunized intranasally on days 0, 21 and 35 with a 10 mu l dose containing 5 micro g rP4 or 10 micro g rP6 plus 1 micro g of the adjuvant (CT, CT-B, E29H, E110D, E112D, R7K and R11K). The anti-rP4 IgG antibody titers were determined by ELISA on pooled samples collected at days 0, 21, 35 and 48. For the cholera mutant adjuvant E29H the titre

Searcher : Shears 571-272-2528

increased from 1.052 at day 0 to 95,922 at day 48 this compared to 1,157 at day 0 to 1,968 at day 48 where no adjuvant was added.

MECHANISM OF ACTION - Induction of IgA in mucosal surfaces. The IgA response in a bronchoalveolar wash on day 49 after **immunization** with a dose containing rP4 and the adjuvant E29H showed titre of 845 compared to 27 when no adjuvant was added.

USE - A method is claimed for increasing the ability of an antigenic composition (AC) to enhance an immune response of a vertebrate host against a selected **antigen** such as a pathogenic bacterium, virus, fungus or parasite, by administration of the antigenic composition. An effective amount of the cholera holotoxin is used to enhance this immune response in a vertebrate host to the **antigen**. The preferred antigenic compositions listed under preferred composition are able to elicit an increased immune response of a vertebrate host. Desirable bacterial **vaccines** including the CT-CRM mutants as an adjuvant include those directed to the prevention and/or treatment of disease caused by Haemophilus influenzae, Haemophilus somnus, **Moraxella catarrhalis**, Streptococcus pyogenes, Streptococcus agalactiae, Helicobacter pylori, Neisseria meningitidis, Neisseria gonorrhoea, Chlamydia trachomatis, Salmonella typhi, Escherichia coli, Shigella, Vibrio cholerae, Corynebacterium diphtheriae, Mycobacterium tuberculosis Mycobacterium avium-Mycobacterium intracellulare complex, Proteus mirabilis, Proteus vulgaris, Staphylococcus aureus, Clostridium tetani, Leptospira interrogans and Mycoplasma gallisepticum. Desirable viral **vaccines** including the CT-CRM mutants as an adjuvant include those directed to the prevention and/or treatment of disease caused by the following viruses: Respiratory syncytial virus, Parainfluenza virus types 1-3, Influenza virus, Herpes simplex virus, Human cytomegalovirus, Human immunodeficiency virus, Hepatitis A, B and C, Human papillomavirus, poliovirus, rotavirus, calciviruses, Measles virus, Mumps virus, Rubella virus, adenovirus, rabies virus, canine distemper virus, feline leukemia virus, Marek's disease virus, equine arteritis virus and various Encephalitis viruses. Desirable **vaccines** against fungal pathogens include those directed to the prevention and/or treatment of disease caused by Aspergillus Blastomyces, Candida, Coccidioides, Cryptococcus and Histoplasma. Desirable **vaccines** against parasites including the CR-CRM mutants as an adjuvant include those directed to the prevention and/or treatment of disease caused by Leishmania major, Ascaris, Trichuris, Giardia, Schistosoma, Cryptosporidium, Trichomonas, Toxoplasma gondii and Pneumocystis carinii.

ADVANTAGE - Parenteral **immunization** regimens are usually ineffective in inducing secretory IgA responses. However, in this approach the coadministration of (cholera toxin) CT, which is a mucosal adjuvant, with an unrelated antigen results in the induction of concurrent circulating and mucosal antibody responses to that antigen. The mutated CT has reduced toxicity so that the symptoms of diarrhoea caused by wild type CT are reduced.

Dwg.0/14

L10 ANSWER 23 OF 24 MEDLINE on STN
 ACCESSION NUMBER: 1998380363 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 9712766
 TITLE: The transferrin binding protein B of

Searcher : Shears 571-272-2528

Moraxella catarrhalis elicits bactericidal antibodies and is a potential vaccine antigen.

AUTHOR: Myers L E; Yang Y P; Du R P; Wang Q; Harkness R E; Schryvers A B; Klein M H; Loosmore S M
 CORPORATE SOURCE: Pasteur Merieux Connaught Canada Research, North York, Ontario, Canada M2R 3T4.
 SOURCE: Infection and immunity, (1998 Sep) 66 (9) 4183-92. Journal code: 0246127. ISSN: 0019-9567.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 OTHER SOURCE: GENBANK-AF039311; GENBANK-AF039312; GENBANK-AF039313; GENBANK-AF039314; GENBANK-AF039315; GENBANK-AF039316
 ENTRY MONTH: 199810
 ENTRY DATE: Entered STN: 19981020
 Last Updated on STN: 20021218
 Entered Medline: 19981002

AB The transferrin binding protein genes (tbpA and tbpB) from two strains of *Moraxella catarrhalis* have been cloned and sequenced. The genomic organization of the *M. catarrhalis* transferrin binding protein genes is unique among known bacteria in that tbpA precedes tbpB and there is a third gene located between them. The deduced sequences of the *M. catarrhalis* TbpA proteins from two strains were 98% identical, while those of the TbpB proteins from the same strains were 63% identical and 70% similar. The third gene, tentatively called orf3, encodes a protein of approximately 58 kDa that is 98% identical between the two strains. The tbpB genes from four additional strains of *M. catarrhalis* were cloned and sequenced, and two potential families of TbpB proteins were identified based on sequence similarities. Recombinant TbpA (rTbpA), rTbpB, and rORF3 proteins were expressed in *Escherichia coli* and purified. rTbpB was shown to retain its ability to bind human transferrin after transfer to a membrane, but neither rTbpA nor rORF3 did. Monospecific anti-rTbpA and anti-rTbpB antibodies were generated and used for immunoblot analysis, which demonstrated that epitopes of *M. catarrhalis* TbpA and TbpB were antigenically conserved and that there was constitutive expression of the tbp genes. In the absence of an appropriate animal model, anti-rTbpA and anti-rTbpB antibodies were tested for their bactericidal activities. The anti-rTbpA antiserum was not bactericidal, but anti-rTbpB antisera were found to kill heterologous strains within the same family. Thus, if bactericidal ability is clinically relevant, a vaccine comprising multiple rTbpB antigens may protect against *M. catarrhalis* disease.

L10 ANSWER 24 OF 24 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 82148747 EMBASE
 DOCUMENT NUMBER: 1982148747
 TITLE: Serological classification of *Neisseria gonorrhoeae* with monoclonal antibodies.
 AUTHOR: Tam M.R.; Buchanan T.M.; Sandstrom E.G.; et al.
 CORPORATE SOURCE: Genet. Syst. Corp., Seattle, WA 98121, United States
 SOURCE: Infection and Immunity, (1982) 36/3 (1042-1053).

10/018672

CODEN: INFIBR
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 004 Microbiology
013 Dermatology and Venereology
LANGUAGE: English

AB Hybrid cells producing monoclonal antibodies against **antigens** of *Neisseria gonorrhoeae* were obtained by the polyethylene glycol-mediated fusion of mouse myeloma cells and lymphocytes from mice **immunized** with gonococcal protein I or outer membrane **proteins**. From four **fusions**, 16 phenotypically stable, independently cloned hybrid cell lines were selected for continued study. Each of the cell lines produced a characteristically different monoclonal antibody which reacted in immunoprecipitation assays with a unique antigenic determinant on protein I of the outer membrane complex of the bacteria. In antibody binding, immunofluorescence, and coagglutination assays these antibodies each reacted with a restricted group of *N. gonorrhoeae* strains. None of the monoclonal antibodies reacted with 17 other different species of *Neisseria* or with **Branhamella catarrhalis**. When tested on 34 *N. gonorrhoeae* reference serotyping strains, the monoclonal antibodies demonstrated serological relationships between the strains which paralleled those observed with conventional polyvalent antisera. These antibodies now provide standardized reagents for the rapid and precise serological characterization of many strains of *N. gonorrhoeae*.

(FILE 'USPATFULL' ENTERED AT 12:43:15 ON 23 JUN 2004)

L4 102 SEA FILE=CAPLUS ABB=ON PLU=ON ((MORAXELLA OR M OR BRANHAM? OR B) (W)CATARRHAL?) (S)ANTIGEN
L11 10 SEA FILE=USPATFULL ABB=ON PLU=ON L4(S)((FUSION OR CHIMERIC) (3A)PROTEIN)
L12 10 SEA FILE=USPATFULL ABB=ON PLU=ON L11(S)(VACCIN? OR IMMUNIS? OR IMMUNIZ?)

L12 ANSWER 1 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2004:95704 USPATFULL
TITLE: Intradermal delivery of substances
INVENTOR(S): Pinkerton, Thomas C., Kalamazoo, MI, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004073160	A1	20040415
APPLICATION INFO.:	US 2001-897753	A1	20010629 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2000-606909, filed on 29 Jun 2000, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	HARNESS, DICKEY, & PIERCE, P.L.C, 7700 BONHOMME, STE 400, ST. LOUIS, MO, 63105		
NUMBER OF CLAIMS:	64		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	7 Drawing Page(s)		
LINE COUNT:	1321		

AB A method for administration of a substance into the dermis of a

Searcher : Shears 571-272-2528

10/018672

mammal is disclosed. The method involves administration into the dermis by injection which results in improved systemic absorption relative to that obtained upon subcutaneous administration of the substance. The substance administered may be a growth hormone, a low molecular weight heparin or a dopamine receptor agonist.

INCL INCLM: 604/028.000

NCL NCLM: 604/028.000

L12 ANSWER 2 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2004:94861 USPATFULL

TITLE: Process to concentrate insoluble proteins by vibrating membrane filtration

INVENTOR(S): Champluvier, Benoit, Rixensart, BELGIUM
Permanne, Philippe Jean Gervais Ghislain, Rixensart, BELGIUM

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004072314	A1	20040415
APPLICATION INFO.:	US 2003-250818	A1	20030709 (10)
	WO 2002-EP63		20020107

	NUMBER	DATE
PRIORITY INFORMATION:	GB 2001-513	20010109
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	SMITHKLINE BEECHAM CORPORATION, CORPORATE INTELLECTUAL PROPERTY-US, UW2220, P. O. BOX 1539, KING OF PRUSSIA, PA, 19406-0939	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
LINE COUNT:	1130	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a process for purifying proteins comprising applying protein extracts to a vibrating membrane fitter equipped with a hydrophilic membrane.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 435/183.000

INCL: 530/412.000

NCL NCLM: 435/183.000

NCL: 530/412.000

L12 ANSWER 3 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2004:38171 USPATFULL

TITLE: Enhanced pharmacokinetic profile of intradermally delivered substances

INVENTOR(S): Pinkerton, Thomas C., Kalamazoo, MI, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004028707	A1	20040212
APPLICATION INFO.:	US 2003-443361	A1	20030522 (10)

Searcher : Shears 571-272-2528

10/018672

RELATED APPLN. INFO.: Continuation of Ser. No. US 2001-897801, filed on
29 Jun 2001, PENDING
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HARNESS, DICKEY, & PIERCE, P.L.C, 7700 BONHOMME,
STE 400, ST. LOUIS, MO, 63105
NUMBER OF CLAIMS: 84
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 11 Drawing Page(s)
LINE COUNT: 1525
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for administration of a substance into the dermis of a
mammal is disclosed. The method involves administration into the
dermis by injection which results in improved systemic absorption
relative to that obtained upon subcutaneous administration of the
substance.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 424/400.000
INCLS: 604/500.000
NCL NCLM: 424/400.000
NCLS: 604/500.000

L12 ANSWER 4 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2004:31702 USPATFULL
TITLE: Method and device for controlling drug
pharmacokinetics
INVENTOR(S): Pettis, Ronald J., Cary, NC, UNITED STATES
Harvey, Noel, Efland, NC, UNITED STATES
Ginsberg, Barry, Wyckoff, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004023844	A1	20040205
APPLICATION INFO.:	US 2003-429973	A1	20030506 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-377649P	20020506 (60)
	US 2002-389881P	20020620 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	VENABLE, BAETJER, HOWARD AND CIVILETTI, LLP, P.O. BOX 34385, WASHINGTON, DC, 20043-9998	
NUMBER OF CLAIMS:	27	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	5 Drawing Page(s)	
LINE COUNT:	987	
AB	Methods and devices for administration of substances into at least two compartments of skin for systemic absorption and improved pharmacokinetics, based on biphasic or bimodel kinetic profiling.	

INCL INCLM: 514/001.000
INCLS: 604/500.000
NCL NCLM: 514/001.000
NCLS: 604/500.000

Searcher : Shears 571-272-2528

L12 ANSWER 5 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2004:4506 USPATFULL
TITLE: Nucleic acid and amino acid sequences relating to
M. catarrhalis for diagnostics and therapeutics
INVENTOR(S): Breton, Gary L., Marlboro, MA, United States
PATENT ASSIGNEE(S): Genome Therapeutics Corporation, Waltham, MA,
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6673910	B1	20040106
APPLICATION INFO.:	US 2000-540236		20000404 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-128416P	19990408 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Woodward, Michael P.	
ASSISTANT EXAMINER:	Zhou, Shubo	
LEGAL REPRESENTATIVE:	Genome Therapeutics Corporation	
NUMBER OF CLAIMS:	14	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)	
LINE COUNT:	3126	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides isolated polypeptide and nucleic acid sequences derived from Moracella catarrhalis that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 536/023.100
INCLS: 536/024.100; 435/006.000; 435/320.100; 435/325.000
NCL NCLM: 536/023.100
NCLS: 435/006.000; 435/320.100; 435/325.000; 536/024.100

L12 ANSWER 6 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2003:147138 USPATFULL
TITLE: Methods and devices for administration of
substances into the intradermal layer of skin for
systemic absorption
INVENTOR(S): Pettis, Ronald J., Cary, NC, UNITED STATES
Harvey, Noel G., Efland, NC, UNITED STATES
Alchas, Paul G., Wayne, NJ, UNITED STATES
Down, James A., Mahwah, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003100885	A1	20030529
APPLICATION INFO.:	US 2001-28988	A1	20011228 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2001-893746,		

10/018672

filed on 29 Jun 2001, PENDING
Continuation-in-part of Ser. No. US 2001-835243,
filed on 13 Apr 2001, PENDING
Continuation-in-part of Ser. No. US 1999-417671,
filed on 14 Oct 1999, GRANTED, Pat. No. US
6494865

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-301531P	20010629 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	VENABLE, BAETJER, HOWARD AND CIVILETTI, LLP, P.O. BOX 34385, WASHINGTON, DC, 20043-9998	
NUMBER OF CLAIMS:	66	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	11 Drawing Page(s)	
LINE COUNT:	1504	
AB	Methods and devices for administration of substances into the intradermal layer of skin for systemic absorption.	
INCL	INCLM: 604/506.000	
	INCLS: 604/522.000; 604/272.000	
NCL	NCLM: 604/506.000	
	NCLS: 604/522.000; 604/272.000	

L12 ANSWER 7 OF 10 USPATFULL on STN
ACCESSION NUMBER: 2003:106697 USPATFULL
TITLE: Enhanced pharmacokinetic profile of intradermally
delivered substances
INVENTOR(S): Pinkerton, Thomas C., Kalamazoo, MI, UNITED
STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003073609	A1	20030417
APPLICATION INFO.:	US 2001-897801	A1	20010629 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Donald R. Holland, Harness, Dickey & Pierce, P.L.C., Suite 400, 7700 Bonhomme, St. Louis, MO, 63105		
NUMBER OF CLAIMS:	84		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	11 Drawing Page(s)		
LINE COUNT:	1522		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
AB	A method for administration of a substance into the dermis of a mammal is disclosed. The method involves administration into the dermis by injection which results in improved systemic absorption relative to that obtained upon subcutaneous administration of the substance. The substance administered may be a growth hormone, a low molecular weight heparin or a dopamine receptor agonist.		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 514/001.000

Searcher : Shears 571-272-2528

10/018672

NCL INCLS: 604/028.000; 514/003.000
NCLM: 514/001.000
NCLS: 604/028.000; 514/003.000

L12 ANSWER 8 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2002:280999 USPATFULL
TITLE: Method and device for reducing therapeutic dosage
INVENTOR(S): Pettis, Ronald J., Cary, NC, UNITED STATES
Harvey, Noel G., Efland, NC, UNITED STATES
Down, James, Cary, NC, UNITED STATES
Alchas, Paul G., Wayne, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002156453	A1	20021024
APPLICATION INFO.:	US 2001-28989	A1	20011228 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2001-893746, filed on 29 Jun 2001, PENDING Continuation-in-part of Ser. No. US 2001-835243, filed on 13 Apr 2001, PENDING Continuation-in-part of Ser. No. US 2000-606909, filed on 29 Jun 2000, PENDING Continuation-in-part of Ser. No. US 1999-417671, filed on 14 Oct 1999, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	VENABLE, BAETJER, HOWARD AND CIVILETTI, LLP, P.O. BOX 34385, WASHINGTON, DC, 20043-9998		
NUMBER OF CLAIMS:	68		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	10 Drawing Page(s)		
LINE COUNT:	1427		
AB	Methods and devices for administration of substances into the intradermal layer of skin with improved bioavailability.		

INCL INCLM: 604/506.000
INCLS: 128/898.000; 604/117.000
NCL INCLM: 604/506.000
NCLS: 128/898.000; 604/117.000

L12 ANSWER 9 OF 10 USPATFULL on STN

ACCESSION NUMBER: 2002:179341 USPATFULL
TITLE: Method for altering drug pharmacokinetics based
on medical delivery platform
INVENTOR(S): Pettis, Ronald J., Cary, NC, UNITED STATES
Harvey, Noel G., Efland, NC, UNITED STATES
Alchas, Paul G., Wayne, NJ, UNITED STATES
Down, James, Cary, NC, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002095134	A1	20020718
APPLICATION INFO.:	US 2001-893746	A1	20010629 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2000-606909, filed on 29 Jun 2000, PENDING Continuation-in-part of Ser. No. US 2001-835243,		

Searcher : Shears 571-272-2528

10/018672

filed on 13 Apr 2001, PENDING
Continuation-in-part of Ser. No. US 1999-417671,
filed on 14 Oct 1999, PENDING

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: VENABLE, BAETJER, HOWARD AND CIVILETTI, LLP, P.O.
BOX 34385, WASHINGTON, DC, 20043-9998

NUMBER OF CLAIMS: 64
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 10 Drawing Page(s)
LINE COUNT: 1328

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for directly delivering whereby a substance is introduced
into an intradermal space within mammalian skin which involves
administering the substance through at least one small gauge
hollow needle having an outlet with an exposed height between 0
and 1 mm. The outlet is inserted into the skin to a depth of
between 0.3 mm and 2 mm such that the delivery of the substance
occurs at a depth between 0.3 mm and 2 mm.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 604/506.000
INCLS: 604/272.000
NCL NCLM: 604/506.000
NCLS: 604/272.000

L12 ANSWER 10 OF 10 USPATFULL on STN

ACCESSION NUMBER: 1999:106092 USPATFULL
TITLE: Vaccine for Moraxella catarrhalis
INVENTOR(S): Murphy, Timothy F., East Amherst, NY, United
States
PATENT ASSIGNEE(S): The Research Foundation of State University of
New York, Amherst, NY, United States (U.S.
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5948412		19990907
APPLICATION INFO.:	US 1997-810655		19970303 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1994-245758, filed on 17 May 1994, now patented, Pat. No. US 5607846		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Degen, Nancy		
ASSISTANT EXAMINER:	Schwartzman, Robert		
LEGAL REPRESENTATIVE:	Hodgson, Russ, Andrews Woods & Goodyear, LLP		
NUMBER OF CLAIMS:	17		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Figure(s); 2 Drawing Page(s)		
LINE COUNT:	1552		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions comprising outer membrane protein "E", and peptides
and oligopeptides thereof, of Moraxella catarrhalis are described.
Additionally, nucleotide sequences encoding the protein, peptide,
or oligopeptide are disclosed, as well as recombinant vectors

Searcher : Shears 571-272-2528

10/018672

containing these sequences. Protein, peptide, or oligopeptide can be produced from host cell systems containing these recombinant vectors. Peptides and oligopeptides can also be chemically synthesized. Disclosed are the uses of the protein, peptides and oligopeptides as antigens in antigenic formulations for vaccine applications or for generating antisera of diagnostic or therapeutic use; and as antigens in diagnostic immunoassays. The nucleotide sequences are useful for constructing vectors for use as vaccines for insertions into attenuated bacteria in constructing a recombinant bacterial vaccine and for inserting into a viral vector in constructing a recombinant viral vaccine. Also described is the use of nucleotide sequences related to the gene encoding E as primers and/or probes in molecular diagnostic assays for the detection of M. catarrhalis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 424/251.100
INCLS: 530/350.000
NCL NCLM: 424/251.100
NCLS: 530/350.000

(FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO, USPATFULL' ENTERED AT 12:44:33 ON 23 JUN 2004)

L13 35 S "THONNARD J"?/AU AND L5
L14 35 DUP REM L13 (0 DUPLICATES REMOVED)

- Author

L14 ANSWER 1 OF 35 USPATFULL on STN
ACCESSION NUMBER: 2004:88269 USPATFULL
TITLE: Novel compounds
INVENTOR(S): Thonnard, Joelle, Rixensart, BELGIUM

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004067238	A1	20040408
APPLICATION INFO.:	US 2003-399411	A1	20031023 (10)
	WO 2001-EP11982		20011016

	NUMBER	DATE
PRIORITY INFORMATION:	GB 2000-25486	20001017
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	DECHERT, ATTN: ALLEN BLOOM, ESQ, 4000 BELL ATLANTIC TOWER, 1717 ARCH STREET, PHILADELPHIA, PA, 19103	
NUMBER OF CLAIMS:	26	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	14 Drawing Page(s)	
LINE COUNT:	3175	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides BASB206 polypeptides and polynucleotides encoding BASB206 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Searcher : Shears 571-272-2528

10/018672

L14 ANSWER 2 OF 35 USPATFULL on STN
ACCESSION NUMBER: 2004:77311 USPATFULL
TITLE: Novel compounds
INVENTOR(S): Thonnard, Joelle, Rixensart, BELGIUM

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004059090	A1	20040325
APPLICATION INFO.:	US 2003-415052	A1	20031024 (10)
	WO 2001-EP12389		20011024

	NUMBER	DATE
PRIORITY INFORMATION:	GB 2000-25998	20001024
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	DECHERT, ATTN: ALLEN BLOOM, ESQ, 4000 BELL ATLANTIC TOWER, 1717 ARCH STREET, PHILADELPHIA, PA, 19103	
NUMBER OF CLAIMS:	26	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	10 Drawing Page(s)	
LINE COUNT:	2839	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides the sequencing of the entire genome of Haemophilus influenzae Rd. SEQ ID NO: 1. The present invention further provides the sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use. In addition to the entire genomic sequence, the present invention identifies over 1700 protein encoding fragments of the genome and identifies, by position relative to a unique Not I restriction endonuclease site, any regulatory elements which modulate the expression of the protein encoding fragments of the Haemophilus genome.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 3 OF 35 USPATFULL on STN
ACCESSION NUMBER: 2004:77084 USPATFULL
TITLE: Novel compounds
INVENTOR(S): Thonnard, Joelle, Rixensart, BELGIUM

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004058863	A1	20040325
APPLICATION INFO.:	US 2003-398959	A1	20031001 (10)
	WO 2001-EP11559		20011005

	NUMBER	DATE
PRIORITY INFORMATION:	GB 2000-25170	20001013
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	DECHERT, ATTN: ALLEN BLOOM, ESQ, 4000 BELL ATLANTIC TOWER, 1717 ARCH STREET, PHILADELPHIA,	

Searcher : Shears 571-272-2528

10/018672

PA, 19103
NUMBER OF CLAIMS: 26
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Page(s)
LINE COUNT: 2787

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides BASB203 polypeptides and polynucleotides encoding BASB203 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 4 OF 35 USPATFULL on STN

ACCESSION NUMBER: 2004:63357 USPATFULL
TITLE: Novel compounds
INVENTOR(S): Thonnard, Joelle, Rixensart, BELGIUM

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004047875	A1	20040311
APPLICATION INFO.:	US 2003-399091	A1	20030828 (10)
	WO 2001-EP11561		20011005

	NUMBER	DATE
PRIORITY INFORMATION:	GB 2000-25169	20001013
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	DECHERT, ATTN: ALLEN BLOOM, ESQ, 4000 BELL ATLANTIC TOWER, 1717 ARCH STREET, PHILADELPHIA, PA, 19103	

NUMBER OF CLAIMS: 26
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Page(s)
LINE COUNT: 3054

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides BASB201 polypeptides and polynucleotides encoding BASB201 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 5 OF 35 USPATFULL on STN

ACCESSION NUMBER: 2004:57454 USPATFULL
TITLE: Novel compounds
INVENTOR(S): Thonnard, Joelle, Rixensart, BELGIUM

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004043456	A1	20040304
APPLICATION INFO.:	US 2003-415017	A1	20030922 (10)
	WO 2001-EP12391		20011024

NUMBER	DATE
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Searcher : Shears 571-272-2528

PRIORITY INFORMATION: GB 2000-25997 20001024
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: DECHERT, ATTN: ALLEN BLOOM, ESQ, 4000 BELL
ATLANTIC TOWER, 1717 ARCH STREET, PHILADELPHIA,
PA, 19103

NUMBER OF CLAIMS: 27
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Page(s)
LINE COUNT: 2947

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides BASB209 polypeptides and polynucleotides encoding BASB209 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 6 OF 35 USPATFULL on STN
ACCESSION NUMBER: 2004:30666 USPATFULL
TITLE: Base205 polypeptides and polynucleotides therefor
INVENTOR(S): Thonnard, Joelle, Rixensart, BELGIUM

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004022803	A1	20040205
APPLICATION INFO.:	US 2003-399089	A1	20030818 (10)
	WO 2001-EP11560		20011005

	NUMBER	DATE
PRIORITY INFORMATION:	GB 2000-25171	20001013
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	DECHERT, ATTN: ALLEN BLOOM, ESQ, 4000 BELL ATLANTIC TOWER, 1717 ARCH STREET, PHILADELPHIA, PA, 19103	
NUMBER OF CLAIMS:	26	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	7 Drawing Page(s)	
LINE COUNT:	2950	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides BASB205 polypeptides and polynucleotides encoding BASB205 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 7 OF 35 USPATFULL on STN
ACCESSION NUMBER: 2004:65820 USPATFULL
TITLE: Cloning of BASB023 antigen from
Moraxella catarrhalis
INVENTOR(S): Thonnard, Joelle, Gembloux, BELGIUM
PATENT ASSIGNEE(S): SmithKline Beecham Biologicals s.a., Rixensart,

BULGARIA (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6706271	B1	20040316
	WO 2000009694		20000224
APPLICATION INFO.:	US 2001-762878		20010514 (9)
	WO 1999-EP5828		19990811

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1998-17824	19980814
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Smith, Lynette R. F.	
ASSISTANT EXAMINER:	Baskar, Padmavathi	
LEGAL REPRESENTATIVE:	Sutton, Jeffrey A., Meade, Eric A.	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 19 Drawing Page(s)	
LINE COUNT:	2226	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides BASB023 polypeptides encoding BASB023 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 8 OF 35 USPATFULL on STN

ACCESSION NUMBER: 2003:140529 USPATFULL
 TITLE: Haemophilus influenza outer membrane protein and use thereof in vaccination
 INVENTOR(S): Berthet, Francois-Xavier Jacques, Barcelona, SPAIN
 Denoel, Philippe, Rixensart, BELGIUM
 Poolman, Jan, Rixensart, BELGIUM
 Thonnard, Joelle, Rixensart, BELGIUM

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003096370	A1	20030522
APPLICATION INFO.:	US 2002-203942	A1	20021021 (10)
	WO 2001-EP1556		20010213

	NUMBER	DATE
PRIORITY INFORMATION:	GB 2000-3502	20000215
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	SMITHKLINE BEECHAM CORPORATION, CORPORATE INTELLECTUAL PROPERTY-US, UW2220, P. O. BOX 1539, KING OF PRUSSIA, PA, 19406-0939	
NUMBER OF CLAIMS:	18	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	2 Drawing Page(s)	

LINE COUNT: 839

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to recombinant bacterial outer membrane proteins comprising one or more LB1(f) peptides from surface-exposed loop 3 of MOMP P5 of non-typeable H. influenzae. Polynucleotides encoding these recombinant proteins are also covered. The invention also relates to a method of isolating the recombinant proteins and a vaccine composition for use in the treatment of Haemophilus influenzae infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 9 OF 35 USPATFULL on STN

ACCESSION NUMBER: 2003:302705 USPATFULL

TITLE: Moraxella catarrhalis polynucleotides and polypeptides

INVENTOR(S): Thonnard, Joelle, Gembloux, BELGIUM

PATENT ASSIGNEE(S): SmithKline Beecham Biologicals s.a., BELGIUM (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6649171	B1	20031118
	WO 9964602		19991216
APPLICATION INFO.:	US 2000-719190		20001208 (9)
	WO 1999-EP3824		19990531

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1998-12440	19980609
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Graser, Jennifer E.	
LEGAL REPRESENTATIVE:	Bittenbender, Teresa O., Dechert LLP, Sutton, Jeffrey A.	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	12 Drawing Figure(s); 12 Drawing Page(s)	
LINE COUNT:	2120	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides BASB021 polypeptides and polynucleotides encoding BASB021 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 10 OF 35 USPATFULL on STN

ACCESSION NUMBER: 2003:260797 USPATFULL

TITLE: Compounds from moraxella catarrhalis

INVENTOR(S): Thonnard, Joelle, Gembloux, BELGIUM

PATENT ASSIGNEE(S): SmithKline Beecham Biologicals s.a., Rixensart, BELGIUM (non-U.S. corporation)

NUMBER	KIND	DATE

10/018672

PATENT INFORMATION: US 6627728 B1 20030930
WO 9958682 19991118
APPLICATION INFO.: US 2001-700336 20010716 (9)
WO 1999-EP3254 19990507

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1998-10195	19980512
	GB 1999-5308	19990308
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Smith, Lynette R. F.	
ASSISTANT EXAMINER:	Ford, Vanessa L	
LEGAL REPRESENTATIVE:	Sutton, Jeffrey A., Meade, Eric A.	
NUMBER OF CLAIMS:	6	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	19 Drawing Figure(s); 19 Drawing Page(s)	
LINE COUNT:	2326	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides BASB010 polypeptides and polynucleotides encoding BASB010 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 11 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2001-308137 [32] WPIDS
DOC. NO. CPI: C2001-095175
TITLE: Novel BASB132 polypeptides of Moraxella catarrhalis useful for diagnostic, prophylactic and therapeutic purposes against microbial diseases, preferably bacterial infections.
DERWENT CLASS: B04 D16
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001023416	A2	20010405	(200132)*	EN	26
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE					
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG					
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ					
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN					
YU ZA ZW					
AU 2000077846	A	20010430	(200142)		
EP 1216302	A2	20020626	(200249)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK					
NL PT RO SE SI					
JP 2003511013	W	20030325	(200330)		130
CN 1402785	A	20030312	(200339)		

Searcher : Shears 571-272-2528

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001023416	A2	WO 2000-EP9495	20000926
AU 2000077846	A	AU 2000-77846	20000926
EP 1216302	A2	EP 2000-967819	20000926
		WO 2000-EP9495	20000926
JP 2003511013	W	WO 2000-EP9495	20000926
		JP 2001-526566	20000926
CN 1402785	A	CN 2000-816501	20000926

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000077846	A Based on	WO 2001023416
EP 1216302	A2 Based on	WO 2001023416
JP 2003511013	W Based on	WO 2001023416

PRIORITY APPLN. INFO: GB 1999-23156 19990930

AN 2001-308137 [32] WPIDS

AB WO 200123416 A UPAB: 20010611

NOVELTY - An isolated BASB132 polypeptide (I) of Moraxella catarrhalis, comprising a sequence having at least 85% identity to a sequence (S1) comprising 1672 or 992 amino acids fully defined in the specification, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an isolated polypeptide (Ia) of 1672 or 992 amino acids fully defined in the specification;
- (2) an immunogenic fragment (Ib) of S1 with the same immunogenic activity of (Ia);
- (3) an isolated polynucleotide (II) encoding, or comprising a sequence encoding (I), (Ia) or (Ib), or its complement;
- (4) an isolated polynucleotide (IIa) comprising a sequence encoding (I), or its complement;
- (5) an isolated polynucleotide (IIb) comprising a nucleotide sequence having at least 85% identity to (II) or its complement;
- (6) an isolated polynucleotide (IIc) comprising a sequence having at least 85% identity to a sequence (S2) comprising 5019 or 2979 nucleotides fully defined in the specification, or its complement;
- (7) an isolated polynucleotide (IIId) comprising S2;
- (8) an isolated polynucleotide (IIe) comprising a sequence encoding S1, obtainable by screening an appropriate library under stringent hybridization conditions with a labeled probe comprising S2;
- (9) an expression vector (III) or a recombinant live microorganism, comprising (II)-(IIe);
- (10) a host cell (IV) comprising (III), or a sub-cellular fraction or membrane of (IV) expressing (I);
- (11) producing (I)-(Ib);
- (12) expressing (II)-(IIe) by transforming (IV) with (III) and culturing the transformed host cell;
- (13) a vaccine composition (V) comprising (I)-(Ib), or

(II)-(IIe);

(14) an antibody (Ab) immunospecific for (I), (Ia) or (Ib);

(15) diagnosing M.catarrhalis infection, by identifying (I)-(Ib) or Ab present within a biological sample from an animal suspected of having such an infection; and

(16) a therapeutic composition (T) useful in treating humans with M.catarrhalis infection, comprising (Ab).

ACTIVITY - Antibacterial; antimicrobial.

MECHANISM OF ACTION - Vaccine. Experimental protocols are given, but no results are given.

USE - (V) is useful for preparing a medicament for use in generating immune response in an animal. (T) is useful for treating humans with M.catarrhalis disease (claimed). BASB132 polypeptides and polynucleotides are useful for preventing and treating microbial diseases, and are useful as diagnostic reagents. (II) has utility in diagnosis of the stage and type of infection, and also for therapeutic or prophylactic purposes, in particular genetic immunization. BASB132 polynucleotides are useful as components of polynucleotide arrays, preferably high density arrays or grids.
Dwg.0/4

L14 ANSWER 12 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2001-244806 [25] WPIDS
DOC. NO. NON-CPI: N2001-174293
DOC. NO. CPI: C2001-073477
TITLE: Novel BASB128 polypeptides of Moraxella catarrhalis useful for diagnostic, prophylactic and therapeutic purposes against microbial diseases, preferably bacterial infections.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS; (SMIK) SMITHKLINE BEECHAM BIOLOGICS SA
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001019997	A2	20010322	(200125)*	EN	90
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE					
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG					
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ					
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN					
YU ZA ZW					
AU 2000079041	A	20010417	(200140)		
EP 1212427	A2	20020612	(200239)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK					
NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001019997	A2	WO 2000-EP9036	20000914

Searcher : Shears 571-272-2528

10/018672

AU 2000079041 A
EP 1212427 A2

AU 2000-79041 20000914
EP 2000-969255 20000914
WO 2000-EP9036 20000914

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000079041	A Based on	WO 2001019997
EP 1212427	A2 Based on	WO 2001019997

PRIORITY APPLN. INFO: GB 1999-21692 19990914

AN 2001-244806 [25] WPIDS

AB WO 200119997 A UPAB: 20010508

NOVELTY - An isolated BASB128 polypeptide (I) of *Moraxella catarrhalis*, comprising at least 85 % identity to a 506 residue amino acid sequence (S1), fully defined in the specification, over the entire length of (S1), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an isolated polypeptide (Ia) comprising (S1);
- (2) an immunogenic fragment (Ib) of S1 with the same immunogenic activity of (Ia);
- (3) an isolated polynucleotide (II) encoding, or comprising a sequence encoding (I), (Ia) or (Ib);
- (4) an isolated polynucleotide (IIa) comprising a sequence encoding (I), or its complement;
- (5) an isolated polynucleotide (IIb) having at least 85 % identity to (II), or its complement;
- (6) an isolated polynucleotide (IIc) having at least 85 % identity to a 1524 or 1521 base pair sequence (S2), both fully defined in the specification, or its complement;
- (7) an isolated polynucleotide (IId) comprising S2;
- (8) an isolated polynucleotide (IIe) encoding S1, obtained by screening a library under stringent hybridization conditions with labeled probe comprising S2 or its fragment;
- (9) an expression vector (III) of a recombinant live microorganism, comprising (II)-(IIe);
- (10) a host cell (IV) comprising (III), or a subcellular fraction or membrane of (IV) expressing (I);
- (11) producing (I), by culturing (IV) and recovering (I) from the culture medium;
- (12) expressing (II)-(IIe) by transforming (IV) with (III) and culturing transformed (IV) under conditions sufficient for its expression;
- (13) a vaccine composition (V) comprising (I)-(Ib), or (II)-(IIe);
- (14) an antibody (Ab) immunospecific for (I), (Ia) or (Ib);
- (15) diagnosing *Moraxella catarrhalis* infection, by identifying (I)-(Ib) or Ab present within a biological sample from an animal;

and

- (16) a therapeutic composition (T) comprising (Ab).

ACTIVITY - Antibacterial; antimicrobial.

MECHANISM OF ACTION - Vaccine; gene therapy.

No biological data is given.

USE - (V) is useful for preparing a medicament for use in

Searcher : Shears 571-272-2528

10/018672

generating an immune response in an animal. (T) is useful for treating humans with **Moraxella catarrhalis** disease. (All claimed). (I) and (II) are useful for treating bacterial infections, and as research reagents and materials for the treatment and diagnosis of diseases, particularly human diseases. (I) or (II) is useful as **antigens** to produce Ab. Ab is useful for isolating or identifying clones expressing (I) or (II), and for treating infections, particularly bacterial infections. (I) and (II) are useful for inducing an immune response in an individual, and to assess the binding of small molecule substrates and ligands in, e.g. cells, cell-free preparations, chemical libraries, and natural product mixtures. (I), (II) and Ab are useful to configure screening methods for detecting the effect of added compounds on the production of mRNA and/or polypeptide in cells. (I), (II) or their agonist or antagonists are useful for interfering with the initial physical interaction between a pathogen or pathogens and a eukaryotic, preferably mammalian host responsible for sequelae of infection. (II) is useful for therapeutic or prophylactic purposes, in particular genetic immunization and in diagnosis of the stage and type of infection. (II) is useful as components of polynucleotide arrays, preferably high density arrays or grids.
Dwg.0/0

L14 ANSWER 13 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-257883 [26] WPIDS
 DOC. NO. CPI: C2001-077723
 TITLE: Novel BASB109 polypeptides of Moraxella catarrhalis useful for diagnostic, prophylactic and therapeutic purposes against microbial diseases, preferably bacterial infections.
 DERWENT CLASS: B04 D16
 INVENTOR(S): THONNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001019996	A1	20010322	(200126)*	EN	92
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000075191	A	20010417	(200140)		
EP 1212426	A1	20020612	(200239)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
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Searcher : Shears 571-272-2528

10/018672

WO 2001019996	A1	WO 2000-EP9035	20000914
AU 2000075191	A	AU 2000-75191	20000914
EP 1212426	A1	EP 2000-964177	20000914
		WO 2000-EP9035	20000914

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000075191	A Based on	WO 2001019996
EP 1212426	A1 Based on	WO 2001019996

PRIORITY APPLN. INFO: GB 1999-21691 19990914

AN 2001-257883 [26] WPIDS

AB WO 200119996 A UPAB: 20010515

NOVELTY - An isolated BASB109 polypeptide (I) of *Moraxella catarrhalis*, comprising a sequence having at least 85% identity to a sequence (S1) comprising 502 amino acids (aa) fully defined in the specification, over the entire length of (S1), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an isolated polypeptide (Ia) of 502 aa;
- (2) an immunogenic fragment (Ib) of S1 with the same immunogenic activity as (Ia);
- (3) an isolated polynucleotide (II) encoding, or comprising a sequence encoding (I), (Ia) or (Ib);
- (4) an isolated polynucleotide (IIa) comprising a sequence encoding (I), or its complement;
- (5) an isolated polynucleotide (IIb) comprising a nucleotide sequence having at least 85% identity to (II) or its complement;
- (6) an isolated polynucleotide (IIc) comprising a sequence having at least 85% identity to a sequence (S2) comprising 1509 or 1506 base pairs (bp) fully defined in the specification, or its complement;
- (7) an isolated polynucleotide (IIId) comprising a polynucleotide sequence encoding S1;
- (8) an isolated polynucleotide (IIe) comprising S2;
- (9) an isolated polynucleotide (IIIf) comprising a nucleotide (nt) sequence encoding S1, obtainable by screening an appropriate library under stringent hybridization conditions with labeled probe comprising S2 or its fragment;
- (10) an expression vector (III) or a recombinant live microorganism, comprising (II)-(IIIf);
- (11) a host cell (IV) comprising (III), or a subcellular fraction or membrane of (IV) expressing (I);
- (12) producing (I)-(Ib);
- (13) expressing (II)-(IIIf) by transforming (IV) with (III) and culturing transformed (IV) under conditions sufficient for expression;
- (14) a vaccine composition (V) comprising (I)-(Ib), or (II)-(IIIf);
- (15) an antibody (Ab) immunospecific for (I), (Ia) or (Ib); and
- (16) diagnosing *Moraxella catarrhalis* infection, by identifying (I)-(Ib) or Ab specific for (I)-(Ib) present within a biological sample from an animal suspected of having such an infection.

ACTIVITY - Antibacterial. Experimental protocols are described,

Searcher : Shears 571-272-2528

but no results are given.

MECHANISM OF ACTION - Vaccine. Experimental protocols are described, but no results are given.

USE - (I) and (II) are useful for treating bacterial infections, and as research reagents and materials for the treatment of and diagnosis of diseases, particularly human diseases. (I) or (II) is useful as antigens to produce Ab. (I) and (II) are useful for inducing an immune response in an individual, and to assess the binding of small molecule substrates and ligands in, for e.g. cells, cell-free preparations, chemical libraries, and natural product mixtures. (I), (II) and Ab are useful to configure screening methods for detecting the effect of added compounds on the production of mRNA and/or polypeptide in cells. (I) or (II) is useful for interfering with the initial physical interaction between a pathogen or pathogens and a eukaryotic, preferably mammalian host responsible for sequelae of infection.

(II) is useful for therapeutic or prophylactic purposes, in particular genetic immunization and in diagnosis of the stage and type of infection. (II) is useful as a component of polynucleotide arrays, preferably high density arrays or grids for diagnosis and prognosis, and are used in oligonucleotide probe arrays to conduct screening of e.g. genetic mutation, serotyping etc.

Ab is useful for isolating or identifying clones expressing (I) or (II); for treating infections, particularly bacterial infections; and in affinity chromatography to purify polypeptides and polynucleotides of the invention.

(V) is useful for preparing a medicament for use in generating an immune response in an animal (claimed). The antibody is useful in a therapeutic composition for treating humans with Moraxella catarrhalis disease (claimed).

Dwg.0/0

L14 ANSWER 14 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-244783 [25] WPIDS
 DOC. NO. NON-CPI: N2001-174285
 DOC. NO. CPI: C2001-073454
 TITLE: Novel BASB129-BASB131 polypeptides isolated from Moraxella catarrhalis bacterium useful as a diagnostic reagent for M.catarrhalis infections and for producing vaccines against otitis media and pneumonia.
 DERWENT CLASS: B04 D16 S03
 INVENTOR(S): THONNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001019862	A2	20010322	(200125)*	EN	80
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE					
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG					
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ					
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN					

10/018672

YU ZA ZW
AU 2001013839 A 20010417 (200140)
EP 1214339 A2 20020619 (200240) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK
NL PT RO SE SI

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001019862	A2	WO 2000-EP9034	20000914
AU 2001013839	A	AU 2001-13839	20000914
EP 1214339	A2	EP 2000-975853	20000914
		WO 2000-EP9034	20000914

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001013839	A Based on	WO 2001019862
EP 1214339	A2 Based on	WO 2001019862

PRIORITY APPLN. INFO: GB 1999-22829 19990925; GB
1999-21693 19990914; GB
1999-21694 19990914

AN 2001-244783 [25] WPIDS

AB WO 200119862 A UPAB: 20010508

NOVELTY - Isolated *Moraxella catarrhalis* BASB129-BASB131 polypeptides (I) comprising a fully defined sequence of 344 (S2), 678 (S4), 469 (S6) amino acids, respectively as given in the specification, or an isolated polypeptide (Ia) which has 85% identity to (S2), (S4) or (S6), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an immunogenic fragment (II), of (I) which has the same immunogenic activity as (I);

(2) an isolated polynucleotide (III), or its complementary nucleotide sequence comprising a nucleotide sequence:

(i) encoding a polypeptide that has 85% identity over the entire length of (S2), (S4), (S6);

(ii) that has 85% identity over the entire length of the nucleotide sequence encoding region which encodes (S2), (S4), (S6);

(iii) which has 85% identity over the entire length of a fully defined nucleotide sequence of 1035 (S1), 2037 (S3), 1410 (S5), base pairs as given in the specification;

(iv) comprising a nucleotide sequence encoding (I) obtainable by screening an appropriate library under stringent hybridization conditions with a labeled probe having the sequence of (S1), (S3), (S5);

(v) encoding (S2), (S4) or (S6); or

(vi) an isolated polynucleotide comprising (S1), (S3) or (S5);

(3) an expression vector (IV), or a recombinant live microorganism comprising (III);

(4) a host cell (V) comprising (IV), or a subcellular fraction or membrane of the host cell expressing (I);

(5) preparation of (I) or (II);

Searcher : Shears 571-272-2528

(6) expressing (III) involves transforming (V) with (IV) which contains any one of the polynucleotides (III) given above and culturing (V) under suitable conditions to express (III);

(7) a vaccine composition which comprises (I) or (II);

(8) a vaccine composition which comprises (III);

(9) an antibody (Ab) immunospecific for (I) or (II); and

(10) a therapeutic composition comprising an antibody directed against (I) useful in treating humans with *M. catarrhalis* disease.

ACTIVITY - Antiinflammatory; auditory.

MECHANISM OF ACTION - Gene therapy; vaccine; initial physical attraction between a pathogen and a mammalian extracellular matrix protein inhibitor.

The biological activity of (I) was tested in mice. Groups of mice were immunized with BASB129, BASB130 and BASB131 vaccine. After the booster, the mice were challenged by bacterial suspension into the nostril under anesthesia. Mice were killed between 30 minutes and 24 hours after challenge and the lungs were removed and homogenized. The log₁₀ weighted mean number of colony forming unit (CFU)/lung was determined by counting the colonies grown on agar plates after plating of dilutions of the homogenate. The arithmetic mean of the log₁₀-weighted mean number of CFU/lung and the standard deviations were calculated for each group. Results were analyzed statistically. Results showed that BASB129, BASB130 and BASB131 vaccine induced significant lung clearance as compared to the control group.

USE - The composition comprising (I), (II) or (III) is useful for preparation of a medicament used for generating an immune response in an animal. (I) is also useful as diagnostic reagent for *M. catarrhalis* which involves identifying (I), an antibody against (I) present within the biological sample from an animal suspected of having such an infection (claimed). Fragments of (I) are useful for producing corresponding full length polypeptides by peptide synthesis. The polynucleotides may be used as hybridization probes for RNA, cDNA and genomic DNA to isolate full-length cDNAs and genomic clones encoding BASB129-BASB131 and to isolate cDNA and genomic clones of other genes that have high sequence identity to BASB129-BASB131 gene. The polynucleotide sequences can also be used in the discovery and development of antibacterial compounds. The encoded protein can be used as target for the screening of antibacterial drugs. Additionally, the polynucleotide sequences encoding the amino terminal regions of the encoded protein or Shine-Dalgarno or other translation facilitating sequences of the respective mRNA can be used to construct antisense sequences to control the expression of the coding sequence of interest. The polynucleotides are also useful as diagnostic reagents in which the mutations in the polynucleotide sequence may be detected and used to diagnose and/or prognose the infection or its stage or course. The polynucleotides may be used as components of arrays which have diagnostic and prognostic uses. Antibodies against (I) are useful for treating bacterial infections and to isolate or identify clones expressing (I) or (II), to purify the polypeptides by affinity chromatography. The polynucleotides and polypeptides are used as research reagents and materials for discovery of treatments of and diagnostics for human diseases. The polynucleotides derived from (S1), (S3) or (S5) are used as PCR (polymerase chain reaction) primers. The polynucleotides are also useful in the diagnosis of the

10/018672

stage of infection and type of infection the pathogen has attained. The polypeptides and polynucleotides are used to block the initial physical interaction between a gram negative and/or gram positive bacteria to mammalian, host thus preventing the sequelae of infection. The polynucleotides encoding certain non-variable regions of bacterial cell surface protein are used in polynucleotide constructs which are useful for genetic immunization experiments in animal models of infection with *M. catarrhalis* to identify protein groups able to provoke a prophylactic or therapeutic immune response. The vaccine comprising (I), (II) or (III) is useful for treating *Moraxella catarrhalis* infections such as sinusitis, nosocomial infections, otitis media and pneumonia.
Dwg.0/0

L14 ANSWER 15 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2001-159876 [16] WPIDS
DOC. NO. NON-CPI: N2001-116486
DOC. NO. CPI: C2001-047628
TITLE: New BASB117 polypeptides from *Moraxella catarrhalis* strain MC2931 (ATCC 43617), useful as therapeutic agents or vaccines against bacterial (especially *M. catarrhalis*) infections, e.g. otitis media or pneumonia.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009339	A2	20010208	(200116)*	EN	79
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000065688	A	20010219	(200129)		
EP 1206547	A2	20020522	(200241)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009339	A2	WO 2000-EP7422	20000731
AU 2000065688	A	AU 2000-65688	20000731
EP 1206547	A2	EP 2000-953131	20000731
		WO 2000-EP7422	20000731

FILING DETAILS:

PATENT NO	KIND	PATENT NO
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Searcher : Shears 571-272-2528

 AU 2000065688 A Based on WO 2001009339
 EP 1206547 A2 Based on WO 2001009339

PRIORITY APPLN. INFO: GB 1999-18206 19990803

AN 2001-159876 [16] WPIDS

AB WO 200109339 A UPAB: 20010323

NOVELTY - *Moraxella catarrhalis* strain MC2931 (ATCC 43617) BASB117 polypeptides, both of 216 amino acids (I and II) as defined in the specification, are new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an isolated polypeptide (P1) comprising an amino acid sequence which has at least 85%, preferably 100%, identity to (I) or (II) over their entire length;

(2) an immunogenic fragment (P2) of the polypeptide, in which the immunogenic activity of the fragment is substantially the same as (I) or (II);

(3) an isolated polynucleotide (N1) selected from:

(a) a nucleotide sequence encoding (I), (II), P1 or P2;

(b) an isolated polynucleotide comprising a nucleotide sequence encoding a polypeptide that has at least 85%, preferably 95%, identity to (I) or (II) over its entire length, or a nucleotide sequence complementary to the isolated polynucleotide;

(c) an isolated polynucleotide comprising a nucleotide sequence that has at least 85%, preferably 95%, identity to a nucleotide sequence encoding (I) or (II) over the entire coding region, or a nucleotide sequence complementary to the isolated polynucleotide;

(d) an isolated polynucleotide comprising the 648 (III) or 651 basepair (bp) sequence (IV) fully defined in the specification;

(e) an isolated polynucleotide comprising a nucleotide sequence which has at least 85%, preferably 95%, identity to (I) or (II) over its entire length, or a nucleotide sequence complementary to the isolated polynucleotide;

(f) a nucleotide sequence encoding (I) or (II) obtainable by screening an appropriate library, under stringent conditions, with a labeled probe having the sequence of (III), (IV) or its fragments;

(4) an expression vector or a recombinant live microorganism comprising N1;

(5) a host cell comprising the expression vector of (4), or a subcellular fraction or membrane of the host cell expressing P1;

(6) a process for producing (I), (II), P1 or P2 by culturing the host cell of (5);

(7) a process for expressing N1 comprising transforming a host cell with the expression vector of (4) and culturing the host cell;

(8) a vaccine compositions comprising (I), (II), P1 or P2 or N1;

(9) an antibody immunospecific for (I), (II), P1 or P2;

(10) a method for diagnosing a *Moraxella catarrhalis* infection comprising identifying (I), (II), P1 or P2 or the antibody of (9) present within a biological sample from an animal suspected of having such an infection; and

(11) a therapeutic composition for treating humans with *Moraxella catarrhalis* disease, comprising at least one antibody against (I), (II), P1 or P2.

ACTIVITY - Antibacterial; ophthalmological; antiinflammatory.

10/018672

MECHANISM OF ACTION - Vaccine; gene therapy.

Groups of mice were immunized with the polypeptide (BASB117) or with a killed whole cells (kwc) preparation of Moraxella catarrhalis or sham immunized.

After booster, the mice were challenged by instillation of bacterial suspension into the nostril under anaesthesia. Mice were killed between 30 minutes and 24 hours after challenge and the lungs were removed aseptically and homogenized individually. The log10 weighted mean number of colony forming units (CFU)/lung was determined by counting the colonies grown on agar plates after plating of dilutions of the homogenate. The arithmetic mean of the log10 weighted mean number of CFU/lung and the standard deviations were calculated for each group.

No results are given.

USE - The composition comprising an immunologic amount of the polypeptide or polynucleotide is useful for preparing a medicament for generating an immune response in an animal. The therapeutic composition is useful in treating humans with M. catarrhalis infection (all claimed). The polypeptides may also be used as prophylactic agents of bacterial infections, particularly M. catarrhalis infections in mammals, especially humans. The polynucleotides are useful in therapy or prophylaxis, particularly genetic immunization against these infections or diseases. These diseases include otitis media in infants or children, pneumonia in elderlies, sinusitis, nosocomial infections and invasive diseases, chronic otitis media with hearing loss, fluid accumulation in the middle ear, infection of the upper respiratory tract, or inflammation of the middle ear. The polypeptides or polynucleotides may also be employed as research reagents and materials for discovering treatments of and diagnostics for diseases, particularly human diseases. In particular, the polypeptides or polynucleotides are useful in the discovery and development of antibacterial compounds, or for diagnosing diseases, staging of the disease, determining the response of an infectious organism to drugs.

Dwg.0/2

L14 ANSWER 16 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2001-159875 [16] WPIDS
DOC. NO. NON-CPI: N2001-116485
DOC. NO. CPI: C2001-047627
TITLE: New BASB116 polypeptides from Moraxella catarrhalis strain MC2931 (ATCC 43617), useful as therapeutic agents or vaccines against bacterial (especially M. catarrhalis) infections, e.g. otitis media or pneumonia.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009338	A1	20010208	(200116)*	EN	79
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW MZ NL OA PT SD SE SL SZ TZ UG ZW					

Searcher : Shears 571-272-2528

10/018672

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN
YU ZA ZW

AU 2000062788 A 20010219 (200129)

EP 1206545 A1 20020522 (200241) EN

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK
NL PT RO SE SI

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009338	A1	WO 2000-EP7421	20000731
AU 2000062788	A	AU 2000-62788	20000731
EP 1206545	A1	EP 2000-949429	20000731
		WO 2000-EP7421	20000731

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000062788	A Based on	WO 2001009338
EP 1206545	A1 Based on	WO 2001009338

PRIORITY APPLN. INFO: GB 1999-18279 19990803

AN 2001-159875 [16] WPIDS

AB WO 200109338 A UPAB: 20010323

NOVELTY - Two *Moraxella catarrhalis* strain MC2931 (ATCC 43617)
BASB116 polypeptides, both of 98 amino acids (I and II) as defined
in the specification, are new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for
the following:

(1) an isolated polypeptide (P1) comprising an amino acid
sequence which has at least 85%, preferably 100%, identity to (I) or
(II) over their entire length;

(2) an immunogenic fragment (P2) of the polypeptide, in which
the immunogenic activity of the fragment is substantially the same
as (I) or (II);

(3) an isolated polynucleotide (N1) selected from:

(a) a nucleotide sequence encoding (I), (II), P1 or P2;

(b) an isolated polynucleotide comprising a nucleotide sequence
encoding a polypeptide that has at least 85% identity to (I) or (II)
over its entire length, or a nucleotide sequence complementary to
the isolated polynucleotide;

(c) an isolated polynucleotide comprising a nucleotide sequence
that has at least 85%, preferably 95%, identity to a nucleotide
sequence encoding (I) or (II) over the entire coding region, or a
nucleotide sequence complementary to the isolated polynucleotide;

(d) an isolated polynucleotide comprising the 297 (III) or 294
(IV) basepair (bp) sequence fully defined in the specification;

(e) an isolated polynucleotide comprising a nucleotide sequence
which has at least 85%, preferably 95%, identity to (I) or (II) over
its entire length, or a nucleotide sequence complementary to the
isolated polynucleotide;

(f) a nucleotide sequence encoding (I) or (II) obtainable by screening an appropriate library, under stringent conditions, with a labeled probe having the sequence of (III), (IV) or its fragments;

(4) an expression vector or a recombinant live microorganism comprising N1;

(5) a host cell comprising the expression vector of (4), or a subcellular fraction or membrane of the host cell expressing P1;

(6) a process for producing (I), (II), P1 or P2 by culturing the host cell of (5);

(7) a process for expressing N1 comprising transforming a host cell with the expression vector of (4) and culturing the host cell;

(8) a vaccine compositions comprising (I), (II), P1 or P2 or N1;

(9) an antibody immunospecific for (I), (II), P1 or P2;

(10) a method for diagnosing a *Moraxella catarrhalis* infection comprising identifying (I), (II), P1 or P2 or the antibody of (9) present within a biological sample from an animal suspected of having such an infection; and

(11) a therapeutic composition for treating humans with *Moraxella catarrhalis* disease, comprising at least one antibody against (I), (II), P1 or P2.

ACTIVITY - Antibacterial; ophthalmological; antiinflammatory.

MECHANISM OF ACTION - Vaccine; gene therapy.

Groups of mice were immunized with the polypeptide (BASB116) or with a killed whole cells (kwc) preparation of *Moraxella catarrhalis* or sham immunized.

After booster, the mice were challenged by instillation of bacterial suspension into the nostril under anaesthesia. Mice were killed between 30 minutes and 24 hours after challenge and the lungs were removed aseptically and homogenized individually. The log₁₀ weighted mean number of colony forming units (CFU)/lung was determined by counting the colonies grown on agar plates after plating of dilutions of the homogenate. The arithmetic mean of the log₁₀ weighted mean number of CFU/lung and the standard deviations were calculated for each group.

No results are given.

USE - The composition comprising an immunologic amount of the polypeptide or polynucleotide is useful for preparing a medicament for generating an immune response in an animal. The therapeutic composition is useful in treating humans with *M. catarrhalis* infection (all claimed). The polypeptides may also be used as prophylactic agents of bacterial infections, particularly *M. catarrhalis* infections in mammals, especially humans. The polynucleotides are useful in therapy or prophylaxis, particularly genetic immunization against these infections or diseases. These diseases include otitis media in infants or children, pneumonia in elderlies, sinusitis, nosocomial infections and invasive diseases, chronic otitis media with hearing loss, fluid accumulation in the middle ear, infection of the upper respiratory tract, or inflammation of the middle ear. The polypeptides or polynucleotides may also be employed as research reagents and materials for discovering treatments of and diagnostics for diseases, particularly human diseases. In particular, the polypeptides or polynucleotides are useful in the discovery and development of antibacterial compounds, or for diagnosing diseases, staging of the disease, determining the response of an infectious organism to drugs.

Dwg.0/2

L14 ANSWER 17 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-159874 [16] WPIDS
 DOC. NO. NON-CPI: N2001-116484
 DOC. NO. CPI: C2001-047626
 TITLE: New BASB122 and BASB124 polypeptides and polynucleotides from Moraxella catarrhalis strain ATCC 43617, useful as therapeutic agents or vaccines against bacterial infections, e.g. otitis media or pneumonia.
 DERWENT CLASS: B04 D16 S03
 INVENTOR(S): THONNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009337	A2	20010208	(200116)*	EN	75
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000065683	A	20010219	(200129)		
EP 1204749	A2	20020515	(200239)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009337	A2	WO 2000-EP7365	20000731
AU 2000065683	A	AU 2000-65683	20000731
EP 1204749	A2	EP 2000-953120	20000731
		WO 2000-EP7365	20000731

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000065683	A Based on	WO 2001009337
EP 1204749	A2 Based on	WO 2001009337

PRIORITY APPLN. INFO: GB 1999-18036 19990730; GB
 1999-18034 19990730

AN 2001-159874 [16] WPIDS
 AB WO 200109337 A UPAB: 20010323
 NOVELTY - New isolated polypeptides, comprising either of two 111 amino acid (I) or two 328 amino acid (II) sequences from Moraxella catarrhalis, all fully defined in the specification, or an at least 85 % identical sequence over their entire length, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an isolated polynucleotide encoding the novel polypeptide, comprising:
 - (a) a sequence encoding the novel polypeptide;
 - (b) a sequence having at least 85 % identity to (a) over its entire length;
 - (c) a 336 (III) or 987 (IV) base pair sequence, both fully defined in the specification;
 - (d) a sequence at least 85 % identical to (III) or (IV) over their entire length;
 - (e) the complements of (a)-(d); or
 - (f) a sequence encoding (I) or (II) obtained by screening a library, under stringent conditions, with a labeled probe having (III), (IV), or fragments of them;
- (2) a statement vector or a recombinant live microorganism, comprising the polynucleotide of (1);
- (3) a host cell comprising the vector of (2), or a subcellular fraction or membrane of the host cell expressing the novel polypeptide;
- (4) a process for producing the novel polypeptide, comprising culturing the host cell of (3) under expression conditions, and recovering the polypeptide;
- (5) a process for expressing the polynucleotide of (1), comprising transforming a host cell with the vector of (2), and culturing the cell for expression of the polynucleotide;
- (6) a vaccine composition comprising the novel polypeptide or the polynucleotide of (1), and a carrier;
- (7) an antibody immunospecific for the novel polypeptide or its immunological fragment;
- (8) a method for diagnosing a M. catarrhalis infection, comprising identifying the novel polypeptide or the antibody of (7) present within a biological sample; and
- (9) a therapeutic composition comprising at least one antibody against the novel polypeptide.

ACTIVITY - Antibacterial; antiinflammatory; auditory.

MECHANISM OF ACTION - Vaccine; gene therapy.

No biological data is given.

USE - The composition comprising an immunologic amount of the polypeptide or polynucleotide is useful for preparing a medicament for generating an immune response in an animal. The therapeutic composition is useful in treating humans with M. catarrhalis infection. (All claimed). The polypeptides may also be used as prophylactic agents of bacterial infections, particularly M. catarrhalis infections in mammals, especially humans. The polynucleotides are useful in therapy or prophylaxis, particularly genetic immunization against these infections or diseases. These diseases include otitis media in infants or children, pneumonia in elderlies, sinusitis, nosocomial infections and invasive diseases, chronic otitis media with hearing loss, fluid accumulation in the middle ear, infection of the upper respiratory tract, or inflammation of the middle ear. The polypeptides or polynucleotides may also be employed as research reagents and materials for discovering treatments of and diagnostics for diseases, particularly human diseases. In particular, the polypeptides or polynucleotides are useful in the discovery and development of antibacterial

10/018672

compounds, or for diagnosing diseases, staging of the disease,
determining the response of an infectious organism to drugs.
Dwg.0/0

L14 ANSWER 18 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2001-159873 [16] WPIDS
DOC. NO. NON-CPI: N2001-116483
DOC. NO. CPI: C2001-047625
TITLE: New BASB119 polypeptides and polynucleotides from
Moraxella catarrhalis strain ATCC 43617, useful as
therapeutic agents or vaccines against bacterial
infections, e.g. otitis media or pneumonia.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009336	A1	20010208	(200116)*	EN	82
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000069887	A	20010219	(200129)		
EP 1206549	A1	20020522	(200241)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
CN 1377411	A	20021030	(200314)		
JP 2003506045	W	20030218	(200315)		82

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009336	A1	WO 2000-EP7363	20000731
AU 2000069887	A	AU 2000-69887	20000731
EP 1206549	A1	EP 2000-958324	20000731
		WO 2000-EP7363	20000731
CN 1377411	A	CN 2000-813833	20000731
JP 2003506045	W	WO 2000-EP7363	20000731
		JP 2001-514128	20000731

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000069887	A Based on	WO 2001009336
EP 1206549	A1 Based on	WO 2001009336
JP 2003506045	W Based on	WO 2001009336

PRIORITY APPLN. INFO: GB 1999-18302 19990803

Searcher : Shears 571-272-2528

AN 2001-159873 [16] WPIDS

AB WO 200109336 A UPAB: 20010323

NOVELTY - New isolated polypeptides, comprising either of two 171 residue amino acid sequences (I and II) from *Moraxella catarrhalis*, both fully defined in the specification, or a sequence at least 85 % identical to (I) or (II), over their entire length, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an isolated polynucleotide encoding the novel polypeptide, comprising:

- (a) a sequence encoding (I) or (II);
- (b) a sequence having at least 85 % identity to the sequence encoding (I) or (II) over the entire coding region;
- (c) a 516 (III) or 513 (IV) base pair sequence, fully defined in the specification;

(d) a sequence having at least 85 % identity to (III) or (IV) over their entire length;

(e) the complements of (a)-(d); or

(f) a sequence encoding (I) or (II) obtained by screening a library, under stringent conditions, with a labeled probe having (III), (IV), or fragments of (III) or (IV);

(2) an statement vector or a recombinant live microorganism comprising the polynucleotide of (1);

(3) a host cell comprising the vector of (2), or a subcellular fraction or membrane of the host cell expressing the novel polypeptide;

(4) a process for producing the novel polypeptide, comprising culturing the cell of (3) under expression conditions, and recovering the polypeptide;

(5) a process for expressing the polynucleotide of (1), comprising transforming a host cell with the vector of (2), and culturing the host cell for expression of the polynucleotide;

(6) vaccine compositions comprising the novel polypeptide or the polynucleotide of (1), and a carrier;

(7) an antibody immunospecific for the novel polypeptide or its immunological fragment;

(8) a method for diagnosing a *M. catarrhalis* infection, comprising identifying the novel polypeptide or the antibody present within a biological sample; and

(9) a therapeutic composition comprising at least one antibody against the novel polypeptide.

ACTIVITY - Antibacterial; antiinflammatory; auditory.

MECHANISM OF ACTION - Vaccine; gene therapy.

Groups of mice were immunized either with the polypeptide (BASB119) adsorbed onto ALPO4 (10 micro g BASB119 onto 100 micro g of ALPO4), with a killed whole cell (kwc) preparation of *M. catarrhalis* strain ATCC 43617 adsorbed onto ALPO4, or with 100 micro g ALPO4 without antigen. The mice were challenged with 5 multiply 105 colony forming units (CFU) of live *M. catarrhalis* strain ATCC 43617 bacteria. The log10 weighted mean number of CFU/lung and the standard deviation 4 hours after challenge was calculated for each group. Sham immunized mice had 5.41 (+/-0.2) log10 CFU/lungs 4 hours after challenge. The kwc preparation induced significant lung clearance as compared to the control group (1.58 log difference). BASB119 vaccine induced a 1.34 log difference in lung clearance, which was significantly

different from the control.

USE - The composition comprising the novel polypeptide or polynucleotide is useful for preparing a medicament for generating an immune response in an animal. The therapeutic composition is useful in treating humans with *M. catarrhalis* infection. (All claimed). The polypeptides may also be used as prophylactic agents of bacterial infections, particularly *M. catarrhalis* infections in mammals, especially humans. The polynucleotides are useful in therapy or prophylaxis, particularly genetic immunization against these infections or diseases. These diseases include otitis media in infants or children, pneumonia in elderlies, sinusitis, nosocomial infections and invasive diseases, chronic otitis media with hearing loss, fluid accumulation in the middle ear, infection of the upper respiratory tract, or inflammation of the middle ear. The polypeptides or polynucleotides may also be employed as research reagents and materials for discovering treatments of and diagnostics for diseases, particularly human diseases. In particular, the polypeptides or polynucleotides are useful in the discovery and development of antibacterial compounds, or for diagnosing diseases, staging of the disease, determining the response of an infectious organism to drugs.

Dwg.0/3

L14 ANSWER 19 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-159872 [16] WPIDS
 DOC. NO. NON-CPI: N2001-116482
 DOC. NO. CPI: C2001-047624
 TITLE: New BASB120 polypeptides and polynucleotides from
 Moraxella catarrhalis strain American Type Culture
 Collection 43617, for use as therapeutic agents or
 vaccines against bacterial infections, e.g. otitis
 media or pneumonia.
 DERWENT CLASS: B04 D16 S03
 INVENTOR(S): THONNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009335	A2	20010208	(200116)*	EN	75
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000064397	A	20010219	(200129)		
EP 1206546	A2	20020522	(200241)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
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Searcher : Shears 571-272-2528

WO 2001009335	A2	WO 2000-EP7361	20000731
AU 2000064397	A	AU 2000-64397	20000731
EP 1206546	A2	EP 2000-951472	20000731
		WO 2000-EP7361	20000731

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000064397	A Based on	WO 2001009335
EP 1206546	A2 Based on	WO 2001009335

PRIORITY APPLN. INFO: GB 1999-18281 19990803

AN 2001-159872 [16] WPIDS

AB WO 200109335 A UPAB: 20010323

NOVELTY - An isolated polypeptide (PP) comprising:

(a) a sequence of 250 amino acids (I) from *Moraxella catarrhalis*, given in the specification; or

(b) an amino acid sequence, which has at least 85% identity to (I), over the entire length of (I), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an immunogenic fragment of the polypeptide, in which the immunogenic activity of the fragment is the same as (I);

(2) isolated polynucleotides, which encode the polypeptides, comprising:

(i) a nucleotide sequence encoding (PP);

(ii) a nucleotide sequence having 85% identity to the nucleotide sequence encoding (I) over the entire coding region;

(iii) a 753 base pair (bp) DNA sequence (II), given in the specification;

(iv) a nucleotide sequence having 85% identity to (II) over the entire length of (II);

(v) the complements of (i)-(iv); or

(vi) a nucleotide sequence encoding (I) obtainable by screening an appropriate library, under stringent conditions, with a labeled probe having (II) or its fragments;

(3) an expression vector or a recombinant live microorganism comprising (2);

(4) a host cell comprising the expression vector, or a subcellular fraction or membrane of the host cell expressing (PP);

(5) producing (PP) comprising culturing (4) to produce (PP) and recovering (PP) from the culture medium;

(6) expressing (2) comprising transforming a host cell with the expression vector and culturing the host cell for expression of any of the polynucleotides;

(7) vaccine compositions comprising (PP) or (2), and a pharmaceutical carrier;

(8) an antibody immunospecific for (PP) or immunological fragment of (1);

(9) diagnosing a *M. catarrhalis* infection comprising identifying (PP) or the antibody of (8) present within a biological sample from an animal suspected of having such an infection;

(10) using the compositions of (7) for preparing a medicament for use in generating an immune response in an animal; and

10/018672

(11) a therapeutic composition comprising the antibody of (8).

ACTIVITY - Antibacterial; antiinflammatory; pulmonary.

MECHANISM OF ACTION - Vaccine; gene therapy. Clinical test details are described but no results are given.

USE - A composition comprising an immunologic amount of (PP) or a polynucleotide encoding it, is useful for preparing a medicament for generating an immune response in an animal. The therapeutic composition is useful in treating humans with *M. catarrhalis* infection (all claimed). The polypeptides may also be used as prophylactic agents of bacterial infections, particularly *M. catarrhalis* infections in mammals, especially humans. The polynucleotides are useful in therapy or prophylaxis, particularly genetic immunization against these infections or diseases. These diseases include otitis media in infants or children, pneumonia in elderly, sinusitis, nosocomial infections and invasive diseases, chronic otitis media with hearing loss, fluid accumulation in the middle ear, infection of the upper respiratory tract, or inflammation of the middle ear. The polypeptides or polynucleotides may also be employed as research reagents and materials for discovering treatments of and diagnostics for diseases, particularly human diseases. In particular, the polypeptides or polynucleotides are useful in the discovery and development of antibacterial compounds, or for diagnosing diseases, staging diseases, and determining the response of an infectious organism to drugs.

Dwg.0/2

L14 ANSWER 20 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2001-159871 [16] WPIDS
DOC. NO. NON-CPI: N2001-116481
DOC. NO. CPI: C2001-047623
TITLE: New BASB118 polypeptides and polynucleotides from
Moraxella catarrhalis strain American Type Culture
Collection 43617, for use as therapeutic agents or
vaccines against bacterial infections, e.g. otitis
media or pneumonia.
DERWENT CLASS: B04 D16 S03
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS; (SMIK)
SMITHKLINE BEECHAM BIOLOGICALS SA
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009334	A1	20010208	(200116)*	EN	77
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE					
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG					
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ					
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN					
YU ZA ZW					
AU 2000068330	A	20010219	(200129)		
EP 1206548	A1	20020522	(200241)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK					
NL PT RO SE SI					

Searcher : Shears 571-272-2528

JP 2003506044 W 20030218 (200315)
 CN 1391610 A 20030115 (200330)

77

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009334	A1	WO 2000-EP7360	20000731
AU 2000068330	A	AU 2000-68330	20000731
EP 1206548	A1	EP 2000-956353	20000731
		WO 2000-EP7360	20000731
JP 2003506044	W	WO 2000-EP7360	20000731
		JP 2001-514126	20000731
CN 1391610	A	CN 2000-813834	20000731

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000068330	A Based on	WO 2001009334
EP 1206548	A1 Based on	WO 2001009334
JP 2003506044	W Based on	WO 2001009334

PRIORITY APPLN. INFO: GB 1999-18208 19990803

AN 2001-159871 [16] WPIDS

AB WO 200109334 A UPAB: 20010323

NOVELTY - An isolated polypeptide comprising:

(a) a sequence of 386 amino acids (I) from *Moraxella catarrhalis*, given in the specification; or

(b) an amino acid sequence, which has 85% identity to (I), over the entire length of (I), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an immunogenic fragment of the new polypeptide, in which the immunogenic activity of the fragment is the same as (I);

(2) isolated polynucleotides, which encode the new polypeptide, comprising:

(i) a nucleotide sequence encoding (a) or (b);

(ii) a nucleotide sequence that has 85% identity to the nucleotide sequence encoding (I) over the entire coding region;

(iii) a 1161 base pair (bp) DNA sequence (II), given in the specification;

(iv) a nucleotide sequence that has 85% identity to (II) over the entire length of (II);

(v) the complements of (i)-(iv); or

(vi) a nucleotide sequence encoding (I) obtainable by screening an appropriate library, under stringent conditions, with a labeled probe having (II) or its fragments;

(3) an expression vector or a recombinant live microorganism comprising an isolated polynucleotide of (2);

(4) a host cell comprising the expression vector of (3), or a subcellular fraction or membrane of the host cell expressing the new polypeptide;

(5) producing the new polypeptide comprising culturing (4) to produce the new polypeptide and recovering it from the culture medium;

(6) expressing a polynucleotide of (2) comprising transforming a host cell with the expression vector of (3) and culturing the host cell for expression of any of the polynucleotides;

(7) vaccine compositions comprising the new polypeptide or polynucleotide of (2), and a pharmaceutical carrier;

(8) an antibody immunospecific for the new polypeptide or immunological fragment;

(9) diagnosing a *M. catarrhalis* infection comprising identifying the new polypeptide or the antibody of (8) present within a biological sample from an animal suspected of having such an infection; and

(10) a therapeutic composition comprising an antibody of (8).

ACTIVITY - Antibacterial; antiinflammatory; pulmonary.

MECHANISM OF ACTION - Vaccine; gene therapy. Groups of mice were immunized either with the polypeptide (BASB118) adsorbed onto AlPO₄ (10 micro g BASB118 onto 100 micro g of AlPO₄), with a killed whole cell (kwc) preparation of *M. catarrhalis* strain American type Culture Collection (ATCC) 43617 adsorbed onto AlPO₄, or with 100 micro g AlPO₄ without antigen. The mice were challenged with 5 multiply 10⁵ colony forming units (CFU) of live *M. catarrhalis* strain ATCC 43617 bacteria. The log₁₀ weighted mean number of CFU/lung and the standard deviation 4 hours after challenge was calculated for each group. Sham immunized mice had 5.66 (+/-0.18) log₁₀ CFU/lungs 4 hours after challenge. The kwc preparation induced significant lung clearance as compared to the control group (1.3 log difference). BASB118 vaccine induced a 0.43 log difference in lung clearance, which was significantly different from the control.

USE - A composition comprising an immunologic amount of the new polypeptide or polynucleotide encoding it, is useful for preparing a medicament for generating an immune response in an animal. The therapeutic composition is useful in treating humans with *M. catarrhalis* infection (all claimed). The polypeptide may also be used as a prophylactic agent of bacterial infections, particularly *M. catarrhalis* infections in mammals, especially humans. The polynucleotides are useful in therapy or prophylaxis, particularly genetic immunization against these infections or diseases. These diseases include otitis media in infants or children, pneumonia in elderlies, sinusitis, nosocomial infections and invasive diseases, chronic otitis media with hearing loss, fluid accumulation in the middle ear, infection of the upper respiratory tract, or inflammation of the middle ear. The polypeptides or polynucleotides may also be employed as research reagents and materials for discovering treatments of and diagnostics for diseases, particularly human diseases. In particular, the new polypeptide or polynucleotides are useful in the discovery and development of antibacterial compounds, or for diagnosing diseases, staging diseases, and determining the response of an infectious organism to drugs.

Dwg.0/1

L14 ANSWER 21 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-159870 [16] WPIDS
 DOC. NO. NON-CPI: N2001-116480
 DOC. NO. CPI: C2001-047622
 TITLE: New BASB123 polypeptides and polynucleotides from

10/018672

Moraxella catarrhalis strain American type Culture Collection 43617, for use as therapeutic agents or vaccines against bacterial infections, e.g. otitis media or pneumonia.

DERWENT CLASS: B04 D16 S03
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009333	A2	20010208	(200116)*	EN	79
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000069880	A	20010219	(200129)		
EP 1216301	A2	20020626	(200249)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009333	A2	WO 2000-EP7296	20000727
AU 2000069880	A	AU 2000-69880	20000727
EP 1216301	A2	EP 2000-958311	20000727
		WO 2000-EP7296	20000727

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000069880	A Based on	WO 2001009333
EP 1216301	A2 Based on	WO 2001009333

PRIORITY APPLN. INFO: GB 1999-17975 19990730

AN 2001-159870 [16] WPIDS

AB WO 200109333 A UPAB: 20010323

NOVELTY - An isolated polypeptide comprising:

(a) a sequence comprising one of two 167 amino acid sequences (designated I and II) from Moraxella catarrhalis, given in the specification; or

(b) an amino acid sequence, which has 85% identity to (I) or (II), over the entire length of (I) or (II), respectively, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an immunogenic fragment of the new polypeptide, in which the immunogenic activity of the fragment is the same as (I) or (II);

(2) isolated polynucleotides, which encode the new polypeptide, comprising:

Searcher : Shears 571-272-2528

- (i) a nucleotide sequence encoding (a) or (b);
- (ii) a nucleotide sequence that has 85% identity to the nucleotide sequence encoding (I) or (II) over the entire coding region;
- (iii) a 504 base pair (bp) (III) or 501 bp (IV) DNA sequence, given in the specification;
- (iv) a nucleotide sequence that has 85% identity to (III) or (IV) over the entire length of (III) or (IV), respectively;
- (v) the complements of (i)-(iv); or
- (vi) a nucleotide sequence encoding (I) or (II) obtainable by screening an appropriate library, under stringent conditions, with a labeled probe having (III), (IV), or fragments of (III) or (IV);
- (3) an expression vector or a recombinant live microorganism comprising a polynucleotide of (2);
- (4) a host cell comprising the expression vector of (3), or a subcellular fraction or membrane of the host cell expressing the new polypeptide;
- (5) producing the new polypeptide comprising culturing (4) to produce the polypeptide and recovering it from the culture medium;
- (6) expressing a polynucleotide of (2) comprising transforming a host cell with the expression vector of (3) and culturing the host cell for expression of any of the polynucleotides;
- (7) vaccine compositions comprising the new polypeptide or polynucleotide of (2), and a pharmaceutical carrier;
- (8) an antibody immunospecific for the new polypeptide or an immunological fragment;
- (9) diagnosing a M. catarrhalis infection comprising identifying the new polypeptide or the antibody of (8) present within a biological sample from an animal suspected of having such an infection; and
- (10) a therapeutic composition comprising an antibody of (8).

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - Vaccine; gene therapy. Clinical details are described but no results are given.

USE - A composition comprising an immunologic amount of the new polypeptide or polynucleotide encoding it, is useful for preparing a medicament for generating an immune response in an animal. The therapeutic composition is useful in treating humans with M. catarrhalis infection (all claimed). The polypeptides may also be used as prophylactic agents of bacterial infections, particularly M. catarrhalis infections in mammals, especially humans. The polynucleotides are useful in therapy or prophylaxis, particularly genetic immunization against these infections or diseases. These diseases include otitis media in infants or children, pneumonia in elderlies, sinusitis, nosocomial infections and invasive diseases, chronic otitis media with hearing loss, fluid accumulation in the middle ear, infection of the upper respiratory tract, or inflammation of the middle ear. The polypeptide or polynucleotides may also be employed as research reagents and materials for discovering treatments of and diagnostics for diseases, particularly human diseases. In particular, the polypeptide or polynucleotides are useful in the discovery and development of antibacterial compounds, or for diagnosing diseases, staging of diseases, and determining the response of an infectious organism to drugs.

Dwg.0/2

10/018672

L14 ANSWER 22 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-159869 [16] WPIDS
 DOC. NO. NON-CPI: N2001-116479
 DOC. NO. CPI: C2001-047621
 TITLE: New BASB115 polypeptide from Moraxella catarrhalis strain MC2931 (ATCC 43617), useful as a therapeutic agent or vaccine against bacterial (especially M. catarrhalis) infections, e.g. otitis media or pneumonia.
 DERWENT CLASS: B04 D16 S03
 INVENTOR(S): THONNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009332	A2	20010208	(200116)*	EN	72
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000068323	A	20010219	(200129)		
EP 1204752	A2	20020515	(200239)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
JP 2003506043	W	20030218	(200315)		75
CN 1378597	A	20021106	(200316)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009332	A2	WO 2000-EP7294	20000727
AU 2000068323	A	AU 2000-68323	20000727
EP 1204752	A2	EP 2000-956339	20000727
		WO 2000-EP7294	20000727
JP 2003506043	W	WO 2000-EP7294	20000727
		JP 2001-514124	20000727
CN 1378597	A	CN 2000-811104	20000727

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000068323	A Based on	WO 2001009332
EP 1204752	A2 Based on	WO 2001009332
JP 2003506043	W Based on	WO 2001009332

PRIORITY APPLN. INFO: GB 1999-18003 19990730
 AN 2001-159869 [16] WPIDS
 AB WO 200109332 A UPAB: 20010323
 NOVELTY - A Moraxella catarrhalis strain MC2931 (ATCC 43617) BASB115

Searcher : Shears 571-272-2528

polypeptide of 199 amino acids (I) as defined in the specification, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an isolated polypeptide (P1) comprising an amino acid sequence which has at least 85%, preferably 100%, identity to (I) over its entire length;
- (2) an immunogenic fragment (P2) of the polypeptide, in which the immunogenic activity of the fragment is substantially the same as (I);
- (3) an isolated polynucleotide (N1) selected from:
 - (a) a nucleotide sequence encoding (I), P1 or P2;
 - (b) an isolated polynucleotide comprising a nucleotide sequence encoding a polypeptide that has at least 85%, preferably 95%, identity to (I) over its entire length, or a nucleotide sequence complementary to the isolated polynucleotide;
 - (c) an isolated polynucleotide comprising a nucleotide sequence that has at least 85%, preferably 95%, identity to a nucleotide sequence encoding (I) over the entire coding region, or a nucleotide sequence complementary to the isolated polynucleotide;
 - (d) an isolated polynucleotide comprising the 600 basepair (bp) sequence (II) fully defined in the specification;
 - (e) an isolated polynucleotide comprising a nucleotide sequence which has at least 85%, preferably 95%, identity to (I) over its entire length, or a nucleotide sequence complementary to the isolated polynucleotide;
 - (f) a nucleotide sequence encoding (I) obtainable by screening an appropriate library, under stringent conditions, with a labeled probe having the sequence of (II) or its fragments;
- (4) an expression vector or a recombinant live microorganism comprising N1;
- (5) a host cell comprising the expression vector of (4), or a subcellular fraction or membrane of the host cell expressing P1;
- (6) a process for producing (I), P1 or P2 by culturing the host cell of (5);
- (7) a process for expressing N1 comprising transforming a host cell with the expression vector of (4) and culturing the host cell;
- (8) a vaccine compositions comprising (I), P1 or P2 or N1;
- (9) an antibody immunospecific for (I), P1 or P2;
- (10) a method for diagnosing a M. catarrhalis infection comprising identifying (I), P1 or P2 or the antibody of (9) present within a biological sample from an animal suspected of having such an infection; and
- (11) a therapeutic composition for treating humans with M. catarrhalis disease, comprising at least one antibody against (I), P1 or P2.

ACTIVITY - Antibacterial; ophthalmological; antiinflammatory.

MECHANISM OF ACTION - Vaccine; gene therapy.

Groups of mice were immunized either with the polypeptide (BASB115) adsorbed onto AlPO4 (10 mu g BASB115 onto 100 mu g of AlPO4), with a killed whole cells (kwc) preparation of M. catarrhalis strain ATCC 43617 adsorbed onto AlPO4, or with 100 mu g AlPO4 without antigen. The mice were challenged with 5 x 10⁵ colony forming units (CFU) of live M. catarrhalis strain ATCC 43617 bacteria. The log10 weighted mean number of CFU/lung and the standard deviation 4 hours after

challenge was calculated for each group. Sham immunized mice had 5.66 (+/-0.18) log₁₀ CFU/lungs 4 hours after challenge. The kwc preparation induced significant lung clearance as compared to the control group (1.76 log difference). BASB115 vaccine induced a 0.46 log difference in lung clearance, which was significantly different from the control.

USE - The composition comprising an immunologic amount of the polypeptide or polynucleotide is useful for preparing a medicament for generating an immune response in an animal. The therapeutic composition is useful in treating humans with *M. catarrhalis* infection (all claimed). The polypeptides may also be used as prophylactic agents of bacterial infections, particularly *M. catarrhalis* infections in mammals, especially humans. The polynucleotides are useful in therapy or prophylaxis, particularly genetic immunization against these infections or diseases. These diseases include otitis media in infants or children, pneumonia in elderlies, sinusitis, nosocomial infections and invasive diseases, chronic otitis media with hearing loss, fluid accumulation in the middle ear, infection of the upper respiratory tract, or inflammation of the middle ear. The polypeptides or polynucleotides may also be employed as research reagents and materials for discovering treatments of and diagnostics for diseases, particularly human diseases. In particular, the polypeptides or polynucleotides are useful in the discovery and development of antibacterial compounds, or for diagnosing diseases, staging of the disease, determining the response of an infectious organism to drugs.

Dwg.0/1

L14 ANSWER 23 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-168707 [17] WPIDS
 DOC. NO. NON-CPI: N2001-121639
 DOC. NO. CPI: C2001-050432
 TITLE: New BASB125 polypeptide isolated from *Moraxella catarrhalis* for treating, preventing and diagnosing diseases associated with *M. catarrhalis* infection in mammals, e.g. otitis media in humans.
 DERWENT CLASS: B04 D16 S03
 INVENTOR(S): THONNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009331	A2	20010208	(200117)*	EN	73
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE					
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG					
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ					
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN					
YU ZA ZW					
AU 2000064393	A	20010219	(200129)		
EP 1212424	A2	20020612	(200239)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK					
NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009331	A2	WO 2000-EP7291	20000727
AU 2000064393	A	AU 2000-64393	20000727
EP 1212424	A2	EP 2000-951466	20000727
		WO 2000-EP7291	20000727

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000064393	A Based on	WO 2001009331
EP 1212424	A2 Based on	WO 2001009331

PRIORITY APPLN. INFO: GB 1999-18041 19990730

AN 2001-168707 [17] WPIDS

AB WO 200109331 A UPAB: 20010328

NOVELTY - An isolated polypeptide having at least 85 % identity to a sequence (I) of 134 amino acids for a *Moraxella catarrhalis* BASB125 polypeptide, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an isolated polypeptide of sequence (I);
- (2) immunogenic fragments of the polypeptide having the same immunogenic activity as sequence (I);
- (3) an isolated polynucleotide:
 - (i) having 85 % identity to a polynucleotide encoding the polypeptide, especially 85 % identity to sequence (II) of 405 base pairs (bp) encoding sequence (I);
 - (ii) complementary to a polynucleotide of (i);
 - (iii) encoding the new polypeptide; and
 - (iv) encoding sequence (I) and obtained by screening a library under stringent conditions using sequence (II) or a fragment as a probe;
- (4) vectors or recombinant live microorganisms comprising the polynucleotide;
- (5) host cells comprising the vector and subcellular fragments/membranes of the host cells expressing the polypeptide;
- (6) producing the new polypeptide comprising culturing the host cell of (5) to produce the polypeptide and recovering the polypeptide from the culture medium;
- (7) expressing (3) comprising transforming a host cell with an expression vector of (4) and culturing the host cell to express the polynucleotide;
- (8) vaccine compositions comprising the new polypeptide or (3);
- (9) antibodies specific for the new polypeptide, or immunological fragments of (2);
- (10) diagnosing a *M. catarrhalis* infection comprising identifying the new polypeptide or an antibody immunospecific for the polypeptide, present within a biological sample from an animal suspected of having the infection;
- (11) preparing a medicament for generating an immune response in an animal using a composition comprising the new polypeptide or

(3); and

(12) a therapeutic composition for treating humans with *M. catarrhalis* disease comprising an antibody against the new polypeptide.

ACTIVITY - Antibacterial. A sequence (II) of 405 base pairs (bp) was isolated from *M. catarrhalis* strain American Type Culture Collection (ATCC) 43617 by standard molecular biological techniques a sequence (I) of 134 amino acids deduced. Mice were immunized with a BASB125 vaccine or a killed whole cell (kwc) *M. catarrhalis* preparation, or were sham immunized. After a booster, mice were challenged by instillation of bacterial suspension into the nostril under anaesthesia. Mice were killed 30 minutes-24 hours after challenge and lungs removed aseptically and homogenized. Homogenates were diluted and plated onto agar plates, and log10 weighted mean number of colony forming units/lung determined by counting. BASB125 vaccine and kwc preparations induced significant lung clearance of *M. catarrhalis* versus controls. No experimental data is given.

MECHANISM OF ACTION - Vaccine; gene therapy.

USE - The polypeptide, immunogenic fragments of the polypeptide, **fusion proteins** of the polypeptide, or polynucleotides encoding the polypeptide are used in vaccine compositions (claimed), optionally with another *M. catarrhalis* antigen (claimed). They can also be included in medicaments for use in generating an immune response in an animal (claimed). The vaccines and medicaments are useful in preventing and/or treating microbial diseases, especially diseases associated with *M. catarrhalis* infection in mammals (especially humans). The polypeptides/polynucleotides may be used to produce antibodies, which can be used in compositions useful therapeutically to treat humans with *M. catarrhalis* diseases (claimed). *M. catarrhalis* is a Gram-negative bacteria frequently isolated from the human upper respiratory tract and responsible for several pathologies in humans e.g. otitis media in children, pneumonia, sinusitis etc. The polypeptides, polynucleotides and antibodies are also useful diagnostically e.g. in the detection of the polypeptides/antibodies in a biological sample from an animal to diagnose *M. catarrhalis* infection (claimed).

The diagnostic assays are useful e.g. to detect diseases, determine the stage and type of infection, determine the effect of drugs etc. The polypeptides and polynucleotides can also be used to detect antagonists and agonists useful e.g. in preventing, inhibiting and/or treating disease. The polynucleotides are also useful in producing hybridization probes to isolate sequences encoding BASB125 and similar sequences.

Dwg.0/0

L14 ANSWER 24 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on.STN
 ACCESSION NUMBER: 2001-159868 [16] WPIDS
 DOC. NO. NON-CPI: N2001-116478
 DOC. NO. CPI: C2001-047620
 TITLE: New polypeptides and polynucleotides of *Moraxella catarrhalis*, useful as vaccine for prevention, treatment of microbial diseases and in diagnostic assays for detecting diseases associated with microbial infections.

10/018672

DERWENT CLASS: B04 D16 S03
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009330	A2	20010208	(200116)*	EN	81
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000064392	A	20010219	(200129)		
EP 1208206	A2	20020529	(200243)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009330	A2	WO 2000-EP7281	20000727
AU 2000064392	A	AU 2000-64392	20000727
EP 1208206	A2	EP 2000-951465	20000727
		WO 2000-EP7281	20000727

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000064392	A Based on	WO 2001009330
EP 1208206	A2 Based on	WO 2001009330

PRIORITY APPLN. INFO: GB 1999-18040 19990730

AN 2001-159868 [16] WPIDS

AB WO 200109330 A UPAB: 20010323

NOVELTY - An isolated polypeptide (I) of Moraxella catarrhalis, designated as BASB121, comprising a sequence (85% identical to a sequence) of 204 amino acids fully defined in the specification, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an immunogenic fragment of (I);
- (2) an isolated polynucleotide (II) encoding (I) comprising a sequence of 615 or 612 base pairs (bp) fully defined in the specification or an isolated polynucleotide (or its complement) comprising a nucleotide sequence 85% identical to (II);
- (3) an expression vector (III) or a recombinant live microorganism comprising (II);
- (4) a host cell comprising (III) or a subcellular fraction of the membrane of the host cell expressing (I);
- (5) preparation of (I);

Searcher : Shears 571-272-2528

(6) expressing (II) by transforming a host cell with (III) comprising the polynucleotide and culturing the host cell;
 (7) a vaccine composition (IV) comprising (I) or (II); and
 (8) an antibody (V) immunospecific for (I) or its immunological fragment.

ACTIVITY - Cytostatic; immunosuppressive; antibacterial; auditory; antiinflammatory.

MECHANISM OF ACTION - Vaccine.

Groups of mice were immunized with BASB121 vaccine. After the booster, the mice were challenged by instillation of bacterial suspension into the nostril under anesthesia. Mice were killed between 30 minutes and 24 hours after challenge and the lungs were removed aseptically and homogenized individually. The log10 weighted mean number of colony forming unit (CFU)/lung was determined by counting the colonies grown on agar plates after plating of dilutions of the homogenate. Results were analyzed statistically. The results showed that BASB121 vaccine induced significant lung clearance as compared to the control group.

USE - (I) and antibodies against the polypeptides are useful for diagnosing *Moraxella catarrhalis* infection, in a biological sample from an animal suspected of having such infection. (I) and (II) are useful for preparing a medicament for use in generating an immune response in an animal. (IV) is useful for treating *Moraxella catarrhalis* disease in humans (claimed). (I) is useful for prevention and treatment of microbial diseases associated with microbial infections and conditions associated with such infections. Diseases caused by or related to infection by a bacteria, includes otitis media in infants and children, pneumonia in elderly people, sinusitis, nosocomial infections and invasive diseases, chronic otitis media with hearing loss, fluid accumulation in the middle ear, auditive nerve damage, delayed speech learning, infection of the upper respiratory tract and inflammation of the middle ear. Antibodies against BASB121-polypeptide or BASB121-polynucleotide are useful for treating infections, particularly bacterial infections caused by *Moraxella catarrhalis*. BASB121 polypeptides and polynucleotides are used to assess the binding of small molecule substrates and ligands, to screen compounds to identify those which enhance (agonist) or block (antagonist) the action of BASB121 polypeptides.

Dwg.0/6

L14 ANSWER 25 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-182955 [18] WPIDS
 DOC. NO. NON-CPI: N2001-130566
 DOC. NO. CPI: C2001-054636
 TITLE: New BASB126 polypeptides of *Moraxella catarrhalis* useful for diagnostic, prophylactic and therapeutic purposes against microbial diseases, preferably bacterial infections.
 DERWENT CLASS: B04 D16 S03
 INVENTOR(S): THONNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO KIND DATE WEEK LA PG

Searcher : Shears 571-272-2528

 WO 2001009329 A1 20010208 (200118)* EN 86
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC
 MW MZ NL OA PT SD SE SL SZ TZ UG ZW
 W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE
 DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG
 KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
 PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN
 YU ZA ZW
 AU 2000068316 A 20010219 (200129)
 EP 1204750 A1 20020515 (200239) EN
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK
 NL RO SI

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009329	A1	WO 2000-EP7280	20000727
AU 2000068316	A	AU 2000-68316	20000727
EP 1204750	A1	EP 2000-956332	20000727
		WO 2000-EP7280	20000727

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000068316	A Based on	WO 2001009329
EP 1204750	A1 Based on	WO 2001009329

PRIORITY APPLN. INFO: GB 1999-18038 19990730

AN 2001-182955 [18] WPIDS

AB WO 200109329 A UPAB: 20010402

NOVELTY - An isolated BASB126 polypeptide (I) of *Moraxella catarrhalis*, comprises a sequence having at least 85% identity (over the entire length) to one of the two 192 amino acids sequences given in the specification.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an immunogenic fragment (II) of (I), where (II) has the same immunogenicity of (I);
- (2) an isolated polynucleotide (III) encoding (I) (II);
- (3) an expression vector (IV) or a recombinant live microorganism, comprising (III);
- (4) a host cell (V) comprising (IV), or a subcellular fraction or membrane of (V) expressing (I);
- (5) producing (I) comprising culturing (V) and recovering the polypeptide from the culture medium;
- (6) expressing (III) comprising transforming (V) with (IV) and culturing under conditions sufficient for its expression;
- (7) a vaccine (VI) comprising (I), (II) or (III);
- (8) an antibody (VII) immunospecific for (I) or (II);
- (9) diagnosing *Moraxella catarrhalis* infection comprising identifying (I) or (VII) in a biological sample from an animal suspected of having such an infection; and
- (10) a therapeutic composition (VIII) for treating *Moraxella*

10/018672

catarrhalis infection comprising at least one (VII).

ACTIVITY - Antibacterial; antimicrobial; auditory; antiinflammatory.

MECHANISM OF ACTION - Vaccine.

Experimental protocols are described but no results are given.

USE - (VI) is useful for preparing a medicament for use in generating immune response in an animal (claimed). (VIII) is useful for treating humans with Moraxella catarrhalis disease (claimed).

(I) and (III) are useful in the prevention, treatment and diagnosis of microbial diseases, preferably bacterial infections such as otitis media, pneumonia, sinusitis, nosocomial infections, and invasive diseases. (I) and (III) are useful as immunogens to produce antibodies, and to assess the binding of small molecule substrate and ligands in, for e.g., cells, cell-free preparations, chemical libraries and natural product mixtures. (I), (III) and (VII) are useful to configured screening methods for detecting the effect of added compounds and production of mRNA and/or polypeptides in the cells.

(III) is useful as a hybridization probe for RNA, cDNA and genomic DNA to isolate full-length cDNAs and genomic clones encoding BASB126 and to isolate cDNA and genomic clones of other genes that have a high identity particularly high sequence identity, to the BASB126 gene. (II) has utility in diagnosis of the stage and type of infection, and also for therapeutic or prophylactic purposes, in particular genetic immunization. (II) is useful as a component of polynucleotide arrays, preferably high density arrays or grid.
Dwg.0/4

L14 ANSWER 26 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2001-159854 [16] WPIDS
DOC. NO. CPI: C2001-047606
TITLE: New BASB114 polypeptides and polynucleotides from Moraxella catarrhalis strain ATCC 43617, useful as therapeutic agents or vaccines against bacterial infections e.g. otitis media or pneumonia.
DERWENT CLASS: B04 D16
INVENTOR(S): THONNARD, J
PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
COUNTRY COUNT: 95
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009179	A1	20010208	(200116)*	EN	82
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE					
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG					
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ					
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN					
YU ZA ZW					
AU 2000068322	A	20010219	(200129)		
EP 1204678	A1	20020515	(200239)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK					
NL RO SI					
CN 1367790	A	20020904	(200281)		

Searcher : Shears 571-272-2528

JP 2003506027 W 20030218 (200315)

81

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009179	A1	WO 2000-EP7293	20000727
AU 2000068322	A	AU 2000-68322	20000727
EP 1204678	A1	EP 2000-956338	20000727
		WO 2000-EP7293	20000727
CN 1367790	A	CN 2000-811120	20000727
JP 2003506027	W	WO 2000-EP7293	20000727
		JP 2001-513985	20000727

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000068322	A Based on	WO 2001009179
EP 1204678	A1 Based on	WO 2001009179
JP 2003506027	W Based on	WO 2001009179

PRIORITY APPLN. INFO: GB 1999-17977 19990730

AN 2001-159854 [16] WPIDS

AB WO 200109179 A UPAB: 20010323

NOVELTY - An isolated BASB114 Moraxella catarrhalis strain American Type Culture Collection Number 43617 polypeptide (I) comprising one of two fully defined sequences of 169 amino acids (S1/S2) as given in the specification or an amino acid sequence at least 85% identical to S1/S2, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an immunogenic fragment of (I) in which the immunogenic activity is substantially the same as (I);
- (2) an isolated polynucleotide (II) comprising:
 - (a) a (sequence at least 85% identical to a) nucleotide sequence encoding (I);
 - (b) a (sequence at least 85% identical to a) fully defined nucleotide sequence of 510 (S3) or 507 (S4) base pairs (bp) as given in the specification;
 - (c) complements of (a) or (b); or
 - (d) a nucleotide sequence obtainable by screening an appropriate library under stringent conditions with a labeled probe containing (fragments of) S3 or S4;
- (3) an expression vector or a recombinant live microorganism (III) comprising (II);
- (4) a host cell (IV) comprising (III) or a subcellular fraction or membrane of (IV) expressing (I);
- (5) producing (I) comprising culturing (IV) and recovering the produced polypeptide;
- (6) expressing (II) comprising transforming a host cell with (III) and culturing the host cell;
- (7) vaccine compositions comprising (I) or (II);
- (8) an antibody (V) immunospecific for (I) or its immunological fragment; and
- (9) diagnosing a M. catarrhalis infection comprising

identifying (I) or (V) present within a biological sample from an animal suspected of having such an infection.

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - Vaccine; gene therapy.

Groups of mice were immunized either with the polypeptide (BASB114) adsorbed onto ALPO4 (undefined) (10 micro g BASB114 onto 100 micro g of ALPO4), with a killed whole cells (kwc) preparation of *M. catarrhalis* strain ATCC 43617 adsorbed onto ALPO4, or with 100 micro g ALPO4 without antigen. The mice were challenged with 5 multiply 10 to the power of 5 cell forming units (CFU) of live *M. catarrhalis* strain ATCC 43617 bacteria. The log 10 weighted mean number of CFU/lung and the standard deviation 4 hours after challenge were calculated for each group. Sham immunized mice had 5.4 (+/-0.2) log 10 CFU/lungs 4 hours after challenge. The kwc preparation induced significant lung clearance as compared to the control group (1.6 log difference). BASB114 vaccine induced a 1.45 log difference in lung clearance, which was significantly different from the control.

USE - The composition comprising an immunologic amount of (I) or (II) is useful for preparing a medicament for generating an immune response in an animal. The therapeutic composition is useful in treating humans with *M. catarrhalis* infection (claimed). (I) may also be used as prophylactic agents of bacterial infections, particularly *M. catarrhalis* infections in mammals, especially humans. (II) are useful in therapy or prophylaxis, particularly genetic immunization against these infections or diseases. These diseases include otitis media in infants or children, pneumonia in elderly patients, sinusitis, nosocomial infections and invasive diseases, chronic otitis media with hearing loss, fluid accumulation in the middle ear, infection of the upper respiratory tract, or inflammation of the middle ear. (I) or (II) may also be employed as research reagents and materials for discovering treatments of and diagnostics for human diseases. In particular, (I) or (II) are useful in the discovery and development of antibacterial compounds, or for diagnosing diseases, staging of the disease, determining the response of an infectious organism to drugs.

Dwg.0/4

L14 ANSWER 27 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-182936 [18] WPIDS
 DOC. NO. CPI: C2001-054617
 TITLE: Novel BASB127 polypeptides of Moraxella catarrhalis, useful for diagnostic, prophylactic and therapeutic purposes against microbial diseases, preferably bacterial infections.
 DERWENT CLASS: B04 D16
 INVENTOR(S): THONNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009172	A2	20010208	(200118)*	EN	74
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW MZ NL OA PT SD SE SL SZ TZ UG ZW					

10/018672

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN
YU ZA ZW

AU 2000068321 A 20010219 (200129)

EP 1204751 A2 20020515 (200239) EN

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK
NL PT RO SE SI

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009172	A2	WO 2000-EP7292	20000727
AU 2000068321	A	AU 2000-68321	20000727
EP 1204751	A2	EP 2000-956337	20000727
		WO 2000-EP7292	20000727

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000068321	A Based on	WO 2001009172
EP 1204751	A2 Based on	WO 2001009172

PRIORITY APPLN. INFO: GB 1999-18033 19990730

AN 2001-182936 [18] WPIDS

AB WO 200109172 A UPAB: 20010402

NOVELTY - An isolated BASB127 polypeptide (I) of Moraxella catarrhalis, comprising at least 85% identity to a 306 residue amino acid sequence (S1), fully defined in the specification, over its entire length, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an isolated polypeptide (Ia) comprising S1;
- (2) an immunogenic fragment (Ib) of S1 with the same immunogenic activity of (Ia);
- (3) an isolated polynucleotide (II) encoding, or comprising a sequence encoding (I), (Ia) or (Ib);
- (4) an isolated polynucleotide (IIa) comprising a sequence encoding (I), or its complement;
- (5) an isolated polynucleotide (IIb) comprising at least 85 % identity to (II) or its complement;
- (6) an isolated polynucleotide (IIc) comprising at least 85 % identity to a 921 nucleotide sequence (S2), fully defined in the specification, or its complement;
- (7) an isolated polynucleotide (IId) comprising S2;
- (8) an isolated polynucleotide comprising (IIe) encoding S1, obtainable by screening an appropriate library under stringent hybridization conditions with labeled probe comprising S2;
- (9) an expression vector (III) or a recombinant live microorganism, comprising (II)-(IIe);
- (10) a host cell (IV) comprising (III), or a subcellular fraction or membrane of (IV) expressing (I);
- (11) producing (I)-(Ib), comprising culturing (IV) under

Searcher : Shears 571-272-2528

expression conditions, and recovering the polypeptide from the medium;

(12) expressing (II)-(IIe) by transforming (IV) with (III) and culturing transformed (IV) under expression conditions;

(13) a vaccine composition (V) comprising (I)-(Ib), or (II)-(IIe);

(14) an antibody (Ab) immunospecific for (I), (Ia) or (Ib);

(15) diagnosing *Moraxella catarrhalis* infection, by identifying (I)-(Ib) or Ab present within a biological sample from an animal suspected of having such an infection; and

(16) a therapeutic composition (T) comprising (Ab).

ACTIVITY - Antibacterial; auditory; antiinflammatory.

MECHANISM OF ACTION - Vaccine.

No biological data is given.

USE - (V) is useful for preparing a medicament for use in generating an immune response in an animal (claimed). (T) is useful for treating humans with *Moraxella catarrhalis* disease (claimed). (I) and (II) are useful in the prevention, treatment and diagnosis of microbial diseases, preferably bacterial infections such as otitis media, pneumonia, sinusitis, nosocomial infections, and invasive diseases. (I) and (II) are useful as immunogens to produce antibodies, and to assess the binding of small molecule substrates and ligands in e.g. cells, cell-free preparations, chemical libraries and natural product mixtures. (I), (II) and Ab are useful for screening methods to detect the effect of added compounds and production of mRNA and/or polypeptides in the cells. (I), (II) and their agonist and antagonist interfere with the initial physical interaction between a pathogen or pathogens and a eukaryotic, preferably mammalian, host responsible for sequelae of infection. (II) useful as a hybridization probe for RNA, cDNA and genomic DNA to isolate full-length cDNAs and genomic clones encoding BASB127 and to isolate cDNA and genomic clones of other genes that have a high identity particularly high sequence identity, to the BASB127 gene. (II) has utility in diagnosis of the stage and type of infection, and also for therapeutic or prophylactic purposes, in particular genetic immunization. (II) is useful as a component of polynucleotide arrays, preferably high density arrays or grid.

Dwg.0/2

L14 ANSWER 28 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-112459 [12] WPIDS
 DOC. NO. NON-CPI: N2001-082527
 DOC. NO. CPI: C2001-033488
 TITLE: Novel BASB110 polypeptides of *Moraxella catarrhalis*, useful as a vaccine for treating *Moraxella catarrhalis* infections.
 DERWENT CLASS: B04 D16 S03
 INVENTOR(S): THONNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001000838	A1	20010104	(200112)*	EN	88
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					

10/018672

MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN
YU ZA ZW

AU 2000059779 A 20010131 (200124)

EP 1196589 A1 20020417 (200233) EN

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK
NL PT RO SE SI

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001000838	A1	WO 2000-EP5854	20000623
AU 2000059779	A	AU 2000-59779	20000623
EP 1196589	A1	EP 2000-945812	20000623
		WO 2000-EP5854	20000623

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000059779	A Based on	WO 2001000838
EP 1196589	A1 Based on	WO 2001000838

PRIORITY APPLN. INFO: GB 1999-15031 19990625

AN 2001-112459 [12] WPIDS

AB WO 2001000838 A UPAB: 20010302

NOVELTY - Isolated BASB110 polypeptides (I) of Moraxella catarrhalis, are new. The BASB110 polypeptide has the 322 (P1) or another 322 (P2) amino acid sequence defined in the specification.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an isolated polypeptide (Ia) comprising an amino acid sequence which is at least 85%, preferably 95%, most preferably 100%, identical to the sequence, over its entire length, of P1 or P2;

(2) an immunogenic fragment (Ib) of (I) or (Ia), where the activity of the fragment is substantially the same as P1 or P2;

(3) an isolated polynucleotide (II) encoding (I), (Ia) or (Ib);

(4) an isolated polynucleotide (IIa) comprising a sequence encoding (Ia) or its complementary sequence;

(5) an isolated polynucleotide (IIb) comprising a sequence having at least 85%, preferably 95%, most preferably 100% identity to a sequence encoding P1 or P2 over the entire coding region, or a nucleotide sequence complementary to the isolated polynucleotide;

(6) an isolated polynucleotide (IIc) comprising a sequence having at least 85%, preferably 95%, most preferably 100% identical to the 969 (N1) or 966 (N2) nucleotides fully defined in the specification, or its complement;

(7) an isolated polynucleotide (IIId) comprising a sequence encoding P1 or P2, obtainable by screening an appropriate library under stringent hybridization conditions with labeled probe having the sequence of N1 or N2;

Searcher : Shears 571-272-2528

(8) an expression vector (III) of a recombinant live microorganism, comprising (II), (IIa), (IIb), (IIc) or (IIId);

(9) a host cell (IV) comprising (III), or a subcellular fraction or membrane of (IV) expressing (Ia);

(10) a process for producing (I), (Ia) or (Ib) comprising culturing (IV);

(11) a process for expressing (II), (IIa), (IIb), (IIc) or (IIId), comprising transforming (IV) with (III) and culturing transformed (IV) under conditions sufficient for its expression;

(12) a vaccine composition (V) comprising (I), (Ia) or (Ib), or (II), (IIa), (IIb), (IIc) or (IIId);

(13) an antibody (Ab1) immunospecific for (I), (Ia) or (Ib); and

(14) a method for diagnosing *Moraxella catarrhalis* infection, by identifying (I)-(Ib) or Ab1 present within a biological sample from an animal suspected of having such an infection.

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - Vaccine.

Groups of mice are immunized with BASB110 vaccine. After the booster, the mice were challenged by instillation of bacterial suspension into the nostril under anaesthesia. Mice were killed between 30 minutes and 24 hours after challenge and the lungs were removed aseptically and homogenized individually. The log 10 weighted mean number of colony forming units (CFU)/lung was determined by counting the colonies grown on agar plates after plating of dilutions of the homogenate. The arithmetic mean of the log 10 weighted mean number of CFU/lung and the standard deviations were calculated for each group. Results were not given in the specification.

USE - The vaccine is useful for preparing a medicament for use in generating immune response in an animal (claimed). Ab1 is useful for treating humans suffering from *Moraxella catarrhalis* disease (claimed).

Polynucleotides encoding the BASB110 polypeptides have utility in diagnosis of the stage and type of infection, and also for therapeutic or prophylactic purposes, in particular genetic immunization.

Dwg.0/3

L14 ANSWER 29 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-123013 [13] WPIDS
 DOC. NO. NON-CPI: N2001-090329
 DOC. NO. CPI: C2001-035704
 TITLE: New BASB111 polypeptides of *Moraxella catarrhalis* useful for diagnostic, prophylactic and therapeutic purposes against microbial diseases, preferably bacterial infections.
 DERWENT CLASS: B04 D16 S03
 INVENTOR(S): THONNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001000837	A1	20010104	(200113)*	EN	79

10/018672

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC
MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN
YU ZA ZW
AU 2000056855 A 20010131 (200124)
EP 1196586 A1 20020417 (200233) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK
NL PT RO SE SI
JP 2003503058 W 20030128 (200309) 78
CN 1378596 A 20021106 (200316)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001000837	A1	WO 2000-EP5852	20000623
AU 2000056855	A	AU 2000-56855	20000623
EP 1196586	A1	EP 2000-942127	20000623
		WO 2000-EP5852	20000623
JP 2003503058	W	WO 2000-EP5852	20000623
		JP 2001-506829	20000623
CN 1378596	A	CN 2000-809501	20000623

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000056855	A Based on	WO 2001000837
EP 1196586	A1 Based on	WO 2001000837
JP 2003503058	W Based on	WO 2001000837

PRIORITY APPLN. INFO: GB 1999-14945 19990625

AN 2001-123013 [13] WPIDS

AB WO 200100837 A UPAB: 20010307

NOVELTY - An isolated BASB111 polypeptide (I) of *Moraxella catarrhalis*, comprising a sequence having at least 85% identity to a sequence (S1) comprising 276 amino acids fully defined in the specification, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an isolated polypeptide (Ia) of (S1);
- (2) an immunogenic fragment (Ib) of S1 with the same immunogenic activity of (Ia);
- (3) an isolated polynucleotide (II) encoding, or comprising a sequence encoding (I), (Ia) or (Ib);
- (4) an isolated polynucleotide (IIa) comprising a sequence encoding (I), or its complement;
- (5) an isolated polynucleotide (IIb) comprising a nucleotide sequence having at least 85% identity to (II) or its complement;
- (6) an isolated polynucleotide (IIc) comprising a sequence having at least 85% identity to a sequence (S2) comprising 831 nucleotides fully defined in the specification, or its complement;
- (7) an isolated polynucleotide (IId) comprising S2;

(8) an isolated polynucleotide comprising (IIe) encoding S1, obtainable by screening an appropriate library under stringent hybridization conditions with labeled probe comprising S2;

(9) an expression vector (III) of a recombinant live microorganism, comprising (II)-(IIe);

(10) a host cell (IV) comprising (III), or a subcellular fraction or membrane of (IV) expressing (I);

(11) a process for producing (I);

(12) a process for expressing (II)-(IIe) by transforming (IV) with (III) and culturing transformed (IV) under conditions sufficient for its expression;

(13) a vaccine composition (V) comprising (I)-(Ib), or (II)-(IIe);

(14) an antibody (Ab) immunospecific for (I), (Ia) or (Ib);

(15) a method of diagnosing *Moraxella catarrhalis* infection, by identifying (I)-(Ib) or Ab present within a biological sample from an animal suspected of having such an infection; and

(16) a therapeutic composition (T) comprising (Ab).

ACTIVITY - Antibacterial; antimicrobial.

No data given.

MECHANISM OF ACTION - Vaccine.

Experimental protocols are disclosed but no results are given.

USE - (V) is useful for preparing a medicament for use in generating immuno response in an animal (claimed). (T) is useful for treating humans with *Moraxella catarrhalis* disease (claimed). (II) has utility in diagnosis of the stage and type of infection, and also for therapeutic or prophylactic purposes, in particular genetic immunization.

Dwg.0/3

L14 ANSWER 30 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-112458 [12] WPIDS
 DOC. NO. NON-CPI: N2001-082526
 DOC. NO. CPI: C2001-033487
 TITLE: New BASB113 polypeptide isolated from *Moraxella catarrhalis* bacterium, useful for diagnosing and producing vaccines against bacterial infections such as otitis media and pneumonia.
 DERWENT CLASS: B04 D16 S03
 INVENTOR(S): THONNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001000836	A1	20010104	(200112)*	EN	86
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE					
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG					
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ					
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN					
YU ZA ZW					
AU 2000059778	A	20010131	(200124)		
EP 1196588	A1	20020417	(200233)	EN	

10/018672

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK
NL PT RO SE SI

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001000836	A1	WO 2000-EP5851	20000623
AU 2000059778	A	AU 2000-59778	20000623
EP 1196588	A1	EP 2000-945811	20000623
		WO 2000-EP5851	20000623

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000059778	A Based on	WO 2001000836
EP 1196588	A1 Based on	WO 2001000836

PRIORITY APPLN. INFO: GB 1999-15044 19990625

AN 2001-112458 [12] WPIDS

AB WO 200100836 A UPAB: 20010302

NOVELTY - An isolated polypeptide (I) comprising an amino acid sequence which has 85% identity to the *Moraxella catarrhalis* BASB113 polypeptide sequence of 224 (S2) or 224 (S4) amino acids respectively as given in the specification, or has a sequence of (S2) or (S4), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an immunogenic fragment (II) of (I) which has the same immunogenic activity as (I);

(2) an isolated polynucleotide (III), or its complementary nucleotide sequence comprising a nucleotide sequence:

(i) encoding a polypeptide that has 85% identity over the entire length of (S2) or (S4);

(ii) that has 85% identity over the entire length of the nucleotide sequence encoding region which encodes (S2) or (S4);

(iii) which has 85% identity over the entire length of a fully defined nucleotide sequence of 675 (S1) or 672 (S3) base pairs as given in the specification; and

(iv) comprising a nucleotide sequencing encoding (I) obtainable by screening an appropriate library under stringent hybridization conditions with a labeled probe with the sequence of (S1) or (S3);

(3) an expression vector (IV), or a recombinant live microorganism comprising (III);

(4) a host cell (V) comprising (IV), or a subcellular fraction or membrane of the host cell expressing (I);

(5) production of (I) comprising culturing (V) and recovering the produced polypeptide;

(6) expressing (III) involves transforming (V) with (IV) which contains any one of the polynucleotides given above and culturing (V) under suitable conditions to express the polynucleotides;

(7) a vaccine composition which comprises (I) or (II);

(8) a vaccine composition which comprises (III);

(9) an antibody (Ab) immunospecific for (I) or (II); and

(10) therapeutic compositions comprising an antibody directed

against (I) useful in treating humans with *Moraxella catarrhalis*.

ACTIVITY - Anti-inflammatory; auditory; antibacterial.

MECHANISM OF ACTION - Gene therapy; vaccine. Details of test are given but no results are stated.

USE - (I), (II) and (III) are useful for preparing a medicament useful for generating an immune response in an animal. (I) is also useful as diagnostic reagent for *Moraxella catarrhalis* which involves identifying (I) or an antibody against (I) present within the biological sample from an animal suspected of having such an infection (claimed). The polynucleotides may be used as hybridization probes for RNA, cDNA and genomic DNA to isolate full-length cDNAs and genomic clones encoding BASB113 and to isolate cDNA and genomic clones of other genes that have high sequence identity to BASB113 gene. The polynucleotides and polypeptides are used as research reagents and materials for discovery of treatments of and diagnostics for human diseases. The polynucleotides derived from (S1) or (S3) is used as PCR (polymerase chain reaction) primers. The polynucleotide sequences can be used in the discovery and development of antibacterial compounds. The encoded protein can be used as target for the screening of antibacterial drugs. Additionally, the polynucleotide sequences encoding the amino terminal regions of the encoded protein or Shine-Dalgarno or other translation facilitating sequences of the respective mRNA can be used to construct antisense sequences to control the expression of the coding sequence of interest. The polypeptides and polynucleotides are used to block the initial physical interaction between a gram negative and/or gram positive bacteria to mammalian, host thus preventing the sequelae of infection. The polynucleotides encoding certain non-variable regions of bacterial cell surface protein are used in polynucleotide constructs which are useful for genetic immunization experiments in animal models of infection with *Moraxella catarrhalis* to identify protein groups able to provoke a prophylactic or therapeutic immune response. The vaccine comprising (I), (II) or (III) is useful for treating *Moraxella catarrhalis* infections such as sinusitis, nosocomial infections, otitis media and pneumonia. (II) is also used for therapeutic or prophylactic purposes especially genetic immunization.

Dwg.0/3

L14 ANSWER 31 OF 35 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
 ACCESSION NUMBER: 2001-112457 [12] WPIDS
 DOC. NO. NON-CPI: N2001-082525
 DOC. NO. CPI: C2001-033486
 TITLE: Novel BASB112 polypeptides of *Moraxella catarrhalis*, useful as a vaccine for treating *Moraxella catarrhalis* infections.
 DERWENT CLASS: B04 D16 S03
 INVENTOR(S): THOMNARD, J
 PATENT ASSIGNEE(S): (SMIK) SMITHKLINE BEECHAM BIOLOGICALS
 COUNTRY COUNT: 95
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001000835	A1	20010104	(200112)*	EN	81
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					

10/018672

MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN
YU ZA ZW
AU 2000061519 A 20010131 (200124)
EP 1196591 A1 20020417 (200233) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK
NL PT RO SE SI

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001000835	A1	WO 2000-EP5849	20000623
AU 2000061519	A	AU 2000-61519	20000623
EP 1196591	A1	EP 2000-947873	20000623
		WO 2000-EP5849	20000623

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000061519	A Based on	WO 2001000835
EP 1196591	A1 Based on	WO 2001000835

PRIORITY APPLN. INFO: GB 1999-14870 19990625

AN 2001-112457 [12] WPIDS

AB WO 200100835 A UPAB: 20010302

NOVELTY - Isolated BASB112 polypeptides (I) of Moraxella catarrhalis, are new. The BASB112 polypeptide has the 122 (P1) or another 122 (P2) amino acid sequence defined in the specification.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) an isolated polypeptide (Ia) comprising an amino acid sequence which is at least 85%, preferably 95%, most preferably 100%, identical to the sequence, over its entire length, of P1 or P2;
- (2) an immunogenic fragment (Ib) of (I) or (Ia), where the activity of the fragment is substantially the same as P1 or P2;
- (3) an isolated polynucleotide (II) encoding (I), (Ia) or (Ib);
- (4) an isolated polynucleotide (IIa) comprising a sequence encoding (Ia) or its complementary sequence
- (5) an isolated polynucleotide (IIb) comprising a sequence having at least 85%, preferably 95%, most preferably 100% identity to a sequence encoding P1 or P2 over the entire coding region, or a nucleotide sequence complementary to the isolated polynucleotide;
- (6) an isolated polynucleotide (IIc) comprising a sequence having at least 85%, preferably 95%, most preferably 100% identical to the 369 (N1) or 366 (N2) nucleotides fully defined in the specification, or its complement;
- (7) an isolated polynucleotide (IId) comprising a sequence encoding P1 or P2, obtainable by screening an appropriate library under stringent hybridization conditions with labeled probe having the sequence of N1 or N2;

Searcher : Shears 571-272-2528

(8) an expression vector (III) of a recombinant live microorganism, comprising (II), (IIa), (IIb), (IIc) or (IId);

(9) a host cell (IV) comprising (III), or a subcellular fraction or membrane of (IV) expressing (Ia);

(10) a process for producing (I), (Ia) or (Ib) comprising culturing (IV)

(11) a process for expressing (II), (IIa), (IIb), (IIc) or (IId), comprising transforming (IV) with (III) and culturing transformed (IV) under conditions sufficient for its expression;

(12) a vaccine composition (V) comprising (I), (Ia) or (Ib), or (II), (IIa), (IIb), (IIc) or (IId);

(13) an antibody (Ab1) immunospecific for (I), (Ia) or (Ib); and

(14) a method for diagnosing *Moraxella catarrhalis* infection, by identifying (I)-(Ib) or Ab1 present within a biological sample from an animal suspected of having such an infection.

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - Vaccine.

Groups of mice are immunized with BASB112 vaccine. After the booster, the mice were challenged by instillation of bacterial suspension into the nostril under anaesthesia. Mice were killed between 30 minutes and 24 hours after challenge and the lungs were removed aseptically and homogenized individually. The log 10 weighted mean number of colony forming units (CFU)/lung was determined by counting the colonies grown on agar plates after plating of dilutions of the homogenate. The arithmetic mean of the log 10 weighted mean number of CFU/lung and the standard deviations were calculated for each group. Results were not given in the specification.

USE - The vaccine is useful for preparing a medicament for use in generating immune response in an animal (claimed). Ab1 is useful for treating humans suffering from *Moraxella catarrhalis* disease (claimed).

Polynucleotides encoding the BASB112 polypeptides have utility in diagnosis of the stage and type of infection, and also for therapeutic or prophylactic purposes, in particular genetic immunization.

Dwg.0/3

L14 ANSWER 32 OF 35 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:795970 CAPLUS

DOCUMENT NUMBER: 132:20305

TITLE: Protein BASB021 and its encoding polynucleotides from *Moraxella catarrhalis* strains and use for diagnosis of and vaccine against otitis media

INVENTOR(S): Thonnard, Joelle

PATENT ASSIGNEE(S): Smithkline Beecham Biologicals SA, Belg.

SOURCE: PCT Int. Appl., 88 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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10/018672

WO 9964602 A2 19991216 WO 1999-EP3824 19990531
WO 9964602 A3 20000203
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU,
CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,
MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG,
SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW,
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE,
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
CA 2329682 AA 19991216 CA 1999-2329682 19990531
AU 9945050 A1 19991230 AU 1999-45050 19990531
EP 1086229 A2 20010328 EP 1999-927846 19990531
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, FI

US 6649171 B1 20031118 US 2000-719190 20001208
PRIORITY APPLN. INFO.: GB 1998-12440 A 19980609
WO 1999-EP3824 W 19990531

AB Claimed are BASB021 polypeptides and polynucleotides encoding
BASB021 polypeptides from *Moraxella catarrhalis* (also known as
Branhamella catarrhalis) strains, methods for producing such
polypeptides by recombinant techniques, and methods for their use in
diagnostics for detecting infection by certain pathogens,
specifically otitis media, and as vaccines against bacterial
infection.

L14 ANSWER 33 OF 35 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:736939 CAPLUS
DOCUMENT NUMBER: 131:348195
TITLE: Protein BASB020 and its encoding polynucleotides
from *Moraxella catarrhalis* strains and use for
diagnosis of and vaccine against otitis media
INVENTOR(S): Thonnard, Joelle
PATENT ASSIGNEE(S): Smithkline Beecham Biologicals SA, Belg.
SOURCE: PCT Int. Appl., 113 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9958684	A2	19991118	WO 1999-EP3257	19990507
WO 9958684	A3	20000224		
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2328502	AA	19991118	CA 1999-2328502	19990507

10/018672

AU 9941421 A1 19991129 AU 1999-41421 19990507
 AU 737196 B2 20010809
 EP 1078064 A2 20010228 EP 1999-924948 19990507
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
 PT, IE, SI, FI
 TR 200003345 T2 20010321 TR 2000-200003345 19990507
 BR 9911773 A 20020305 BR 1999-11773 19990507
 JP 2002514425 T2 20020521 JP 2000-548475 19990507
 NZ 508322 A 20021220 NZ 1999-508322 19990507
 NO 2000005697 A 20010110 NO 2000-5697 20001110
 ZA 2000006522 A 20011129 ZA 2000-6522 20001110

PRIORITY APPLN. INFO.: GB 1998-10285 A 19980513
 WO 1999-EP3257 W 19990507

AB Claimed are BASB020 polypeptides and polynucleotides encoding
 BASB020 polypeptides from *Moraxella catarrhalis* (also known as
Branhamella catarrhalis) strains, methods for producing such
 polypeptides by recombinant techniques, and methods for their use in
 diagnostics for detecting infection by certain pathogens,
 specifically otitis media, and as vaccines against bacterial
 infection.

L14 ANSWER 34 OF 35 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:736935 CAPLUS

DOCUMENT NUMBER: 131:348194

TITLE: Protein BASB010 and its encoding polynucleotides
 from *Moraxella catarrhalis* strains and use for
 diagnosis of and vaccine against otitis media

INVENTOR(S): Thonnard, Joelle

PATENT ASSIGNEE(S): Smithkline Beecham Biologicals SA, Belg.

SOURCE: PCT Int. Appl., 100 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9958682	A2	19991118	WO 1999-EP3254	19990507
WO 9958682	A3	20000127		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2328141	AA	19991118	CA 1999-2328141	19990507
AU 9942600	A1	19991129	AU 1999-42600	19990507
EP 1078065	A2	20010228	EP 1999-950353	19990507
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6627728	B1	20030930	US 2001-700336	20010716

PRIORITY APPLN. INFO.: GB 1998-10195 A 19980512

Searcher : Shears 571-272-2528

10/018672

GB 1999-5308 A 19990308
WO 1999-EP3254 W 19990507

AB Claimed are BASB010 polypeptides and polynucleotides encoding
BASB010 polypeptides from *Moraxella catarrhalis* (also known as
Branhamella catarrhalis) strains, methods for producing such
polypeptides by recombinant techniques, and methods for their use in
diagnostics for detecting infection by certain pathogens,
specifically otitis media, and as vaccines against bacterial
infection.

L14 ANSWER 35 OF 35 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:736754 CAPLUS

DOCUMENT NUMBER: 131:348191

TITLE: Protein BASB009 and its encoding polynucleotides
from *Moraxella catarrhalis* strains and use for
diagnosis of and vaccine against otitis media

INVENTOR(S): Thonnard, Joelle

PATENT ASSIGNEE(S): Smithkline Beecham Biologicals SA, Belg.

SOURCE: PCT Int. Appl., 99 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9958562	A2	19991118	WO 1999-EP3262	19990510
WO 9958562	A3	20010517		
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2328061	AA	19991118	CA 1999-2328061	19990510
AU 9942601	A1	19991129	AU 1999-42601	19990510
EP 1086127	A1	20010328	EP 1999-950345	19990510
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI			

PRIORITY APPLN. INFO.:

GB 1998-10193 A 19980512

WO 1999-EP3262 W 19990510

AB Claimed are BASB009 polypeptides and polynucleotides encoding
BASB009 polypeptides from *Moraxella catarrhalis* (also known as
Branhamella catarrhalis) strains, methods for producing such
polypeptides by recombinant techniques, and methods for their use in
diagnostics for detecting infection by certain pathogens,
specifically otitis media, and as vaccines against bacterial
infection.

FILE 'HOME' ENTERED AT 12:45:37 ON 23 JUN 2004

Searcher : Shears 571-272-2528